

American Bee Journal



45th Year

CHICAGO, ILL., AUGUST 3, 1905

No. 31

Some 4th of July "Kodaks" Taken at Dr. Miller's

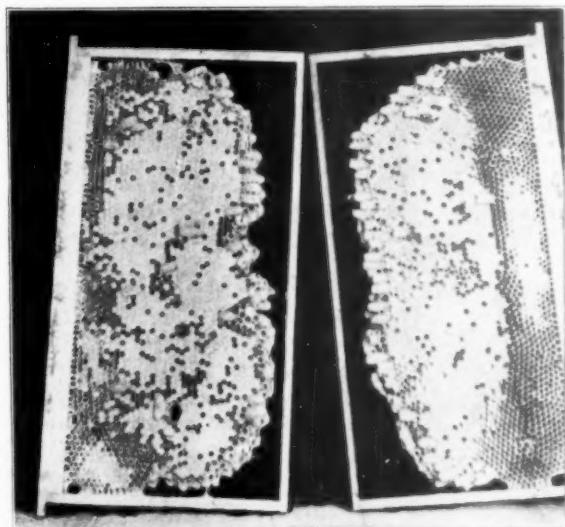
(See page 534)



Dr. Miller with Bee Hat and Veil, also Record-Book—
before going to the apiary



"Mother" Wilson—Dr. Miller's Beloved
Mother-in-Law



Brood-Combs with 119 Queen-Cells—Started by
Dr. Miller's Cyprian Colony



Dr. Miller Holding His Yearling Clydesdale,
"Roderick"

THE AMERICAN BEE JOURNAL.

PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY
334 Dearborn Street, Chicago, Ill.

IMPORTANT NOTICES

THE SUBSCRIPTION PRICE of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

THE WRAPPER-LABEL DATE indicates the end of the month to which your subscription is paid. For instance, "dec'to" on your label shows that it is paid to the end of December, 1904.

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Objects of the Association

- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their law rights.
- 3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00

General Manager and Treasurer—
N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

The Honey-Producers' League

(INCORPORATED)

OBJECTS:

1. To create a larger demand for honey through advertising.
2. To publish facts about honey, and counteract misrepresentations of the same.

MEMBERSHIP DUES

1. Any bee-keeper may become a member by paying to the Manager an annual fee of \$1.00 for each 20 or fraction of 20 colonies of bees (spring count) he owns or operates.

2. Any honey-dealer, bee-supply dealer, bee-supply manufacturer, bee-paper publisher, or any other firm or individual may become a member on the annual payment of a fee of \$5.00 increased by one-fifth of one (1) percent of his or its capital used in the allied interests of bee-keeping.

GEORGE W. YORK, Manager,
334 Dearborn St., CHICAGO, ILL.

Italian Queen-Bee Free as a Premium

To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1905, we will give an untested Italian queen for sending us ONE NEW subscription with \$1.00 for the Bee Journal a year. Now is the time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.

HONEY-JARS.

For a limited time we offer No. 25 Honey-Jars, porcelain cover, metal screw cap, holding one pound of honey net, one gross in case complete in 5-gross lots, \$4.00 per gross; less quantities, \$4.50 per gross, f.o.b. New York. If you want to secure some, let us know at once.

HILDRETH & SEGELEN, 265 & 267 GREENWICH ST., NEW YORK, N. Y.
1111 Please mention the Bee Journal.

IN THE HEART OF MICHIGAN

Within a hundred miles of me are over $\frac{1}{2}$ of the bee-keepers of Michigan. I am on the Pere Marquette R.R., which completely covers this region. Root's Goods, Factory Prices, Prompt Service, Low Freight. Send for Catalog.

GEORGE E. HILTON,
12A182 FREMONT, MICH.
Please mention the Bee Journal when writing

"If Goods are wanted Quick, send to Pouder"



BEE-SUPPLIES

Root's Goods at Root's Prices

Everything used by Bee-Keepers.

POUDER'S HONEY-JARS. Prompt Service.
Low Freight Rates. Catalog Free.

Hoosier Strain Italian Queen-Bees by Return Mail

Untested Queen.....	\$.75	Select Breeding Queen.....	\$5.00
Select Untested Queen	1.00	Best Imported Queen.....	5.00
Tested Queen	1.00	Fair Imported Queen.....	3.00
Select Tested Queen.....	2.00		

WALTER S. POUDER,

513-515 Massachusetts Ave.,

INDIANAPOLIS, IND.

Millions of Sections Shipping-Cases TONS of COMB FOUNDATION

Abundance of Bee-Smokers, Bee-Veils, Bee-Escapes, Bee-Hives, etc. Everything the bee-keeper needs. The best goods made. Lewis' Goods in Indianapolis at Factory Prices. Orders received in the morning shipped same day. FINE ITALIAN QUEENS mailed promptly from our breeder, here in the city. Untested, 75c; Select Untested, \$1.00; Tested, \$1.00; Select Tested, \$2.00.

C. M. SCOTT & CO.

1004 EAST WASH. STREET

INDIANAPOLIS, IND. ++ ++ ++

N.B.—A Porter Bee-Escape, or its equivalent, FREE with first order, if you say where you saw this ad.

LEWIS' SECTIONS, SHIPPING-CASES.

AND A FULL LINE OF

BEE-SUPPLIES BY RETURN FREIGHT OR EXPRESS.

SEND TO



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York Honey — AND BEE SUPPLY — Co.

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(5 short blocks north of the C. & N. W. Ry. Passenger Station, using the Wells St. Cable Line from center of city to Ontario St.)

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"DADANT'S FOUNDATION"

IT EXCELS.

WE GUARANTEE SATISFACTION.

*** BEE-SUPPLIES ***
OF ALL KINDS.

Beeswax Wanted at all Times.

DADANT & SONS, Hamilton, Ill.

STANDARD BRED QUEENS.

BUCKEYE STRAIN RED CLOVER, GOLDEN ITALIANS

By Return Mail. Safe Arrival Guaranteed.

PRICES.

	ONE	SIX	TWELVE
Untested	\$0.75	\$4.00	\$7.50
Select Untested	1.00	5.00	9.00
Tested	1.50	8.00	15.00
Select Tested	2.00	10.00	18.00

Select Breeders, each \$3.00
Two-frame Nucleus and Red Clover Queen 3.00

THE FRED W. MUTH CO.,
No. 51 WALNUT ST., CINCINNATI, OHIO.

We SELL ROOT'S GOODS IN MICHIGAN
Let us quote you prices on Sections, Hives,
Foundation, etc., as we can save you time and
freight. Beeswax Wanted for Cash.

M. H. HUNT & SON,
BELL BRANCH, WAYNE CO., MICH.
Please mention Bee Journal when writing.

VIRGINIA QUEENS Italian Queens secured by a cross, and years of careful selection from red-clover queens and superior stock obtained from W. Z. Hutchinson. Untested queens, 75c; after June 15, 60c; tested queens, \$1.00; after June 15, 75c; selected tested queens, \$1.25; after June 15, \$1.00. Write postal card for circular. CHAS. KOEPPEN, 17A 26t, FREDERICKSBURG, VA.



Bee - Supplies!

We carry a large stock and greatest variety of everything needed in the Apiary, assuring best goods at lowest

prices, and prompt shipments. We want every bee-keeper to have our Free Illustrated Catalog, and read description of Alternating Hives, Massie Hives, etc. Write at once for Catalog, either English or German language.

KRETCHMER MFG. CO., Red Oak, Iowa.

AGENCIES

Trester Supply Co., Lincoln, Neb.
Shugart & Ouren, Council Bluffs, Iowa.
Southwestern Bee Co., 438 W. Houston St., San Antonio, Tex.

Fulton & Ford, Garden City, Kansas.
I. H. Myers, Lamar, Colo.



FINE QUEENS

By Return Mail. From my 3 and 5 banded long tongued Italians. Tested, \$1; warranted tested, 75c; untested, 60c; no disease. I guarantee all Queens perfect, to arrive safely, and to give reasonable satisfaction. I have pleased others and can please you. May I ask for a trial order?

CHAS. M. DARROW
23 Atch R. F. D. No. 1 MILO, MO.

QUEENS

We have secured the services of one of the best Queen specialists in the U. S. Over 20 years' experience rearing Queens. Our Yard is stocked with select breeders from the best yards in America, and can send Queens by return mail.

Prices to Sept. 1, 1905:

Untested Queens	\$.75
Select Untested Queens	1.00
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GRIGGS BROS.

521 Monroe Street,
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August is the time to requeen the apiary. It pays to have the best possible stock. Root's Red Clover Strain is famous the world over for its many points of excellence. A young, vigorous queen introduced now will bring the colony up to the best possible condition for wintering. Queens, too, now are the cheapest, and prompt delivery is made.

We are in an unequalled position to fill your queen orders. Having eleven apiaries, approximately 900 hives, with hundreds of Baby Nuclei, we are in condition to take care of all orders sent.

Table of Prices

Regular Italian Queens

Untested queens	75
Select untested queens	1 00
Tested queens	1 50
Select tested queens	2 50

Red-Clover and Other Strains of Italian Queens Reared in the Root Co's Apiaries

Untested queen	81 00
Select untested queen	1 25
Tested queen	2 00
Select tested queen	3 00
Breeding queen	5 00
Select breeding queens	7 50
Extra select breeding queens, 1 year old	10 00

Imported Queens

Fair imported queens	83 00
Best imported queens	5 00

Caucasian Queens

We can spare a limited number of imported Caucasian queens, received direct from the best breeders in Caucasus. Prices as follows:

Extra select Caucasian imported queens	\$15 00
Select Caucasian imported queen	10 00
Extra select untested Caucasian-Italian queens, from Caucasian mothers mated with Italian drones	3 00
Select do	2 00
Orders filled in rotation. Delivery begins about July 15.	

Prices of Nuclei

One-frame nucleus, without queen	82 00
Two-frame nucleus, without queen	3 00
Three-frame nucleus, without queen	3 50
One colony of bees in 8-frame Dovetailed hive, no queen	7 50

"I received my bees and queen and I am well pleased with them. The queen is a beauty, and the bees easy to handle. They were to work in ten minutes after I put them in the hive."—E. T. MILLS, Ills., May 15, 1905.

"I beg to acknowledge receipt of five fine queens, and, as they got here in good shape, beg to thank you for prompt and successful delivery. Without further advice, I am yours truly."

"FREDERICO SOMERFORD, Cuba, June 13, 1905."

"I am pleased to say that the bees are doing fine. I find eggs in every available cell. I also found the queen, and it is entirely satisfactory."—W. H. DURST, Ohio, July 20, 1905.

Send for complete price-list

CASES

Don't allow your comb honey to be sold at low prices on account of poor **Shipping-Cases**. Put your crop into Root's **No-Drip Cases**, and it will reach the market in perfect condition and bring the highest prices. Our cases are made of selected basswood, with 2 or 3 inch glass front, which shows off the honey to the best possible advantage. Below is a condensed price-list. Complete prices and particulars are found in our General Catalog. Write for it.

Name and Size of Case.	Shipping-Cases.	Nailed each.	Price complete	With 2 in glass instead of 3—per 100.	Without
			including 3-in. glass one side, nails and paper, in flat.		
			1	10	100
12-in. 4-row for 4 $\frac{1}{4}$ section		30 25	2 00	\$18 00	\$17 00
10-in. 4-row	" "	30 25	2 00	17 00	15 00
12-in. 2-row	" "	20 15	1 30	11 00	10 50
10-in. 2-row	" "	20 15	1 20	10 50	10 00
16-in. 2-row	" "	25 18	1 50	12 00	11 50
8-in. 3-row	" "	20 15	1 30	11 50	10 75
6 $\frac{1}{2}$ -in. 3-row	" "	20 15	1 20	11 00	10 25
7 $\frac{1}{2}$ -in. 4-row for 4x5	" "	30 22	1 80	16 00	14 00
7 $\frac{1}{2}$ -in. 3-row	" "	25 20	1 40	12 00	10 50
9 $\frac{1}{2}$ -in. 4-row for 3 $\frac{1}{2}$ x5	" "	30 22	1 80	16 00	14 00
6 $\frac{1}{2}$ -in. 3-row	" "	25 20	1 40	11 50	10 00

5-Gallon Square Cans

These are the favorite packages for shipping Extracted Honey to the market. There can be no shrinkage and consequent leaking; no taint to the honey from wood, as is so frequently the case with kegs and barrels. The cans being square economize space, and are easily handled. This package is almost exclusively used in the West. They take 4th class freight-rate.

PRICE LIST OF SQUARE CANS.

No. in a box.	Capacity of each can in gallons, in honey.	Price of 1 box.	10 bxs.	Wt. of 1 box.
1	5-gal. can boxed.	60 lbs.	\$ 55	\$ 5 00
2	" 5 gal.	60 "	85	8 00
10	1-gal.	12 "	1 50	14 00
12	1 $\frac{1}{2}$ -gal.	6 "	1 50	14 00
24	1 $\frac{1}{4}$ -gal.	3 "	2 40	23 00
100	1-gal.	12 "	11 00	105 00
100	1 $\frac{1}{2}$ -gal.	6 "	9 00	85 00
100	1 $\frac{1}{4}$ -gal.	3 "	7 00	65 00

"The consignment of bee-material received to-day. Your promptness in filling orders is remarkable, especially when the circumstances are considered. I am very well satisfied with the goods and your dealing. I take pleasure in having introduced Root's Goods into this neighborhood."—REV. WM. ENGELKE, Iowa, May 5, 1905.

"I do not want anything set up, as I would rather set the hives up myself, besides it is a pleasure to put Root's hives and fixtures together."—JOHN L. FUNK, Ohio, Jan. 11, 1905.

"I desire to thank you for being so prompt in sending the sections I ordered from you. They came in less time than it takes to tell it."—L. G. REED, Ohio, July 10, 1905.

Send for complete price-list

The A. I. Root Company

MEDINA, OHIO



BRANCHES

Chicago, 144 E. Erie St.

Philadelphia, 10 Vine St.

New York, 44 Vesey St.

ESTABLISHED IN
1861

THE AMERICAN

OLDEST BEE-PAPER
IN AMERICA

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GEORGE W. YORK, Editor

CHICAGO, ILL., AUGUST 3, 1905

Vol XLV—No. 31

Editorial Notes and Comments

The Fourth Double Number

It will be noticed that this is another double number—32 pages—making the fourth of the kind so far this year. It will take several minutes longer to read it all, but it will pay to do it. We hope it will be enjoyed also.

Marketing Honey

This copy of the American Bee Journal might almost be called a special number on the very important topic of marketing honey. Results of actual experience are given, and if minutely followed by others similar successes should be attained. We bespeak a careful reading of all in this issue on marketing honey, as well as the other contents.

Shipping Extracted Honey

Usually extracted honey is shipped with no loss whatever. Perhaps a large majority of the producers put it into the common 5-gallon or 60-pound tin can, two cans in a wooden box. Practically all the Western extracted honey is thus put up for market.

In some of the Middle States, notably Wisconsin and certain parts of Illinois, and even in New York State, much of the extracted honey is put into barrels. Where the right kind of barrels can be had, and if the producer understands the use of barrels for such purposes, they are all right. But please excuse us from handling honey in barrels, especially if it is to be held in storage many months before being sold to the consumer who will use it very soon.

Grading Comb Honey for Market

Few bee-keepers agree as to the grading of comb honey. This doubtless is the result of every bee-keeper seeming to think that his own honey is always the fanciest kind of fancy honey. At least that was our experience when we were dealing somewhat extensively in honey. Nearly every shipper that we dealt with thought he should have the

top-of-the-market price for his honey, no matter in what grade it deserved to be placed.

We had some interesting experiences that we could give if it were necessary. But we remember several instances where half-filled and half-sealed sections were put in back of the row of nice ones next to the glass front. Also where dark and "measley" looking sections of honey were mixed in with the nice white ones that invariably veneered the case.

Let us say it in the kindest way possible, that we are certain it will pay even bee-keepers to be straight and honest. It never pays to be otherwise, in the long run. It may be possible to work off a gold-brick once, but hardly the second time—not on the same person, at least.

Were we to ship honey to a distant market we would send only the best grades, and either eat the poorer honey or sell it in the home market at a little lower price, perhaps, to people who would just as soon have it as the finer-looking honey.

We would not put our name and address on the sections or cases of honey unless we had the consent of the purchaser to do so. We might, however, put our initials on the outside of all the cases, so that the receiver should not get it mixed with some other shipment of honey.

Shipping Comb Honey

Some time ago we promised to publish detailed directions for shipping comb honey safely. As the time to put such information into practical use is now here, we present not only the result of our own experience, but that of some others as well.

For a number of years we were in the honey business rather extensively, and every shipment of comb honey that was either sent out or received at our store, if packed according to our instructions, carried safely.

In the first place, the comb honey should be put in either 12-pound or 24-pound shipping-cases. Then say 9 of the 12-pound or 6 of the 24-pound cases packed in a shipping-

crate, first putting in the bottom of the crate a thick bed of straw or hay, or excelsior. This will act as a cushion under the cases of honey. The crate should then be enclosed on top by nailing on say two or three strips of boards, on which must be marked in large, plain letters—

COMB HONEY.

HANDLE WITH CARE.

Also coming even with the upper edge of each side of the crate we would nail on a piece of board, say an inch thick by 3 or 4 inches wide, and extending beyond the ends of the crate about 5 inches. These will serve as handles for the freight men to take hold of when moving the crate either on or off the cars.

As said before, whenever the foregoing instructions as to preparing comb honey for shipment were implicitly followed, the honey arrived at its destination in perfect condition. It seems such a pity to have a lot of nice comb honey arrive in a broken or smashed-up condition, and all for the lack of proper packing before shipping. We trust that readers of the American Bee Journal will never be called upon to suffer any loss when sending their comb honey to a distant market.

"Sell Your Honey Early"

Editor Root gives in Gleanings the following good advice as to selling honey:

"As we have said before in these columns we say again, sell your honey early. New honey, right off the hives, always has the advantage. Consumers learn to expect new honey just as they expect new maple molasses. It is generally poor policy to hold back, waiting for better prices. Anyhow, manage to get it sold before the holidays—the sooner the better, as a rule."

Usually, higher prices rule for a *very few* months after the first honey comes on the market; after that the tendency in prices has been to drop a little. So Mr. Root's advice is all right, taken one season with another. Occasionally it may be the case that prices of honey will go up in a few months after the new crop is put on the market, but such experience is quite exceptional, we believe.

Lava Soap for Removing Propolis

This has been highly extolled, but J. A. Green, in Gleanings in Bee Culture, reported

it a failure with him. Editor Root, having previously used it successfully, finally struck a kind of propolis that was proof against lava soap. He says:

"To-day I got my hands pretty badly smeared up with a yellowish-brown propolis, 'and now,' said I, 'is a good time to test the lava soap.' It had absolutely no effect on the propolis. I rubbed and scrubbed; but the

more I lathered and soaped the more it seemed to stick. I then went to the benzine-can, sopped my hands in the liquid, and soon had the satisfaction of seeing the propolis roll off. A second application of the soap made my hands nice and clean."

He thinks this "gummy, yellowish-brown stuff" must first be treated with gasoline, alcohol, or the like.

Miscellaneous News Items

Fourth of July with Dr. Miller.—Again it was the happy privilege of yr editor and wife to spend Fourth of July with Dr. C. C. Miller and his family. Doubtless the great majority of our readers know that Dr. Miller's family usually comprises, besides himself, Mrs. Miller, her sister (Miss Emma M. Wilson), and their beloved mother, Mrs. Wilson. "Mother" Wilson will be 87 years of age her next birthday. The presence of this dear old saint would be a benediction in any home. Although the day was cloudy and rainy, we persuaded her to sit on the porch, holding a tray of four boxes of just-picked luscious strawberries, in order to "take her picture." The result is shown on the first page.

Dr. Miller has two apiaries this season—one at home, having 125 colonies and nuclei, and an out-apriary (3 miles away) with 100 colonies. All are run for comb honey. He began with 178 colonies in the spring.

In early spring he and his efficient assistant, Miss Wilson, had prepared 26,000 sections, each with a top and a bottom starter of comb foundation, and all put in supers ready to place on the hives when needed. The pros-

He is using what proves to be a very rapid method of having queen-cells completed for the queen-nursery. He removed the queen from the only Cyprian colony he has, and then gave that queenless colony two frames of eggs and young larvae from the banner colony. In due time the Cyprian colony had those two combs looking like the picture on the first page. There were 45 queen-cells on one of them, and 74 on the other. It was really laughable to see how the bees of that "Cyp" colony had humped themselves in order to provide a queen or two for themselves! Then at the proper time Dr. Miller simply cuts off the perfected cells and puts them in the queen-nursery, which is placed over another colony for hatching. As the virgin queens then emerge, they are introduced to nuclei previously formed, and awaiting the reception of the hybrid queens reared by the fiery-tempered Cyprian nurses. It is all a very successful procedure.

Dr. Miller keeps a book record of each colony of his apiaries. The home yard is numbered beginning with 1, while the out-yard begins with a higher number. One book contains the records of both apiaries for the sea-

very annoying, as it is located only a few rods from the home. And when starting for the out-apriary the record-book, of course, is about the first thing thought of as necessary to take along.

There is great advantage in this record-book. Dr. Miller can, before starting from the house in the morning, look over the colony records in his book, and see in a few minutes nearly all the work needed to be done that whole day. In fact, the condition of each colony in his apiaries is noted in the book. He can almost at once see just what should be done next—the most important thing that requires prompt attention—before going to the apriary for personal examination. And by referring to his record-books, he can tell just what he has done each year with bees during the past two score years or more. In the picture shown, the Doctor is sitting in a rocking-chair on the porch, with record-book open on his lap, ready to find out just what nuclei need virgin queens. After learning that, we proceeded to the apriary and introduced a number of them.

He is also making trial of the dual method of introducing queens. Suppose a nucleus contains a virgin queen. Three or more days before she is likely to be ready to lay, a second virgin is introduced. She is put in a cage something like the Miller introducing cage already on the market; but with no provision for the bees to release her by eating out the candy. Instead of that a little ball of candy is dropped right into the cage, and the virgin put in with it, then the stopper is put in. Just as soon as virgin No. 1 becomes a laying queen she is removed from the nucleus and used wherever needed. On the same visit when No. 1 is removed, No. 2 is let out of the cage, and at the same time virgin No. 3 is put caged into the nucleus. Then when No. 2 is



(From the Northwest)



TWO VIEWS OF DR. MILLER'S HOME APIARY

(From the Southwest)

pect was, July 4, that even more sections might be required, should white clover continue to yield as it had in previous best seasons.

Dr. Miller believes in rearing all the queens for requeening his apriary and for increase, from the queen whose bees produced the largest quantity of honey a previous season. As it happened, that queen this time was a hybrid. But he is requeening and queening the increase made by the nucleus method with queens reared from the one mentioned.

son. Each year requires a new book. Every detail of each colony, and also of everything connected with both apiaries, is carefully noted down. Then at the end of the season it is easy to total the results, not only of each colony, but of each apriary.

A lead-pencil is attached to the book with a string, and notations are made at each hive as the work proceeds. Of course, there is danger of forgetting to take the book along to the apriary when starting, but in the case of the home apriary such forgetfulness is not

laying she is taken out, No. 3 is released and No. 4 is caged, and so on. This plan has been successfully used by Editor Root, and saves the usual time of introducing a fresh virgin.

Dr. Miller likes horses also. He drives a spirited team of mares in a two-seated carriage. If he were a young man we should fear his taking to race-horses. But as he is now about 2 months past 74 years, he will not likely be "carried away" with anything faster in the horse-flesh line than he now owns. One of his mares had a colt a year ago

In May. On July 4 Dr. Miller haltered it and led it out on the lawn to have its picture taken. The result is seen. It is three-quarters Clydesdale stock, and promises to grow into a fine horse of a beautiful light bay color. The Doctor will soon be harnessing Roderick and likely be driving him a little by the time he is two years old.

We must not forget to mention the delicious strawberries that are found on Dr. Miller's place, which, with their "home grown" cream, make such a rich feast.

But one day is all too short with Dr. Miller and his happy family. It's almost a continuous bee-convention from morn till night, for aside from the time spent in the apiary it was mostly bee-talk.

Dr. Miller is probably the most prolific writer on bees in all the world. And his writing is so original and entertaining that it charms, entertains and instructs those who are privileged to read it. But his conversation is just as pleasing, and withal he is so cheerful and young-hearted that to be with him even a whole day seems all too brief a time. We count it a thing to be greatly

they will be announced with the dates as soon as known. We are hoping to get up a carload of bee-keepers to start from Chicago in time to take in the "Bee-Keepers' Day" at the Fair, and then the National Convention. As soon as we can get any definite information concerning transportation we will place it before our readers, and trust that as many as can do so will arrange to go together from Chicago.

They Leave the "Wax."—"Your government," said the foreigner, "is a failure. Everywhere your institutions are honey-combed with graft."

"Oh," replied the hopeful American, "it isn't as bad as you think. The grafters have been public-spirited enough in most cases to leave the wax."

T. W. Bryan, somewhere in Illinois, is running a small advertisement in farm papers offering, for \$1.00, "The Art of Attracting and Catching Swarms of Bees. Copyrighted June 6, 1904." We can hardly believe that any of our readers would be willing to pay



MISS WILSON READY FOR BEE-WORK

prized, that we have been permitted to know Dr. Miller so intimately, and to be able to present each week to our readers something from his ready pen, drawn from years of practical experience with bees. We are sure all will join with us in wishing him yet many, many years of health and happiness ere he shall be called to exchange his earthly home for the one "not made with hands, eternal in the Heavens."

The San Antonio Convention of the National Bee-Keepers' Association meets Oct. 30, 31, and Nov. 1. Oct. 28 will be "Bee-Keepers' Day" at the International Fair to be held at that time in San Antonio. We have consulted several leading railroad companies here in Chicago, and they tell us that no special rates have as yet been decided on that bee-keepers in the North can take advantage of. They think there will be low rates in force at the time of the convention, and that

\$1.00 for what they can easily find out in any one of the standard books on bee-keeping, besides a thousand and one other things of value. Mr. Lisle Schneider, of Iowa, has kindly sent us a copy of Mr. Bryan's advertisement, taken from some farm paper. We are always glad to have our readers send us anything aparian that they may find in publications that we would likely not see otherwise.

W. H. H. Stewart, of Whiteside Co., Ill., gave us a brief call last week. He is a bee-keeper of many years' experience, and usually attends the annual meetings of the Chicago-Northwestern Association.

Ira Barber, of St. Lawrence Co., N. Y., writing us July 27, said:

"There is a large crop of white clover honey in this locality, and the honey season is over."

Some Expert Opinion

More Honey from Colony and One Swarm, or from Colony and No Swarm?

Ques. 28—Which will give you more honey, a colony with its one swarm, or the same colony without any swarming?

MRS. J. M. NULL (Mo.)—Usually the former.

G. M. DOOLITTLE (N. Y.)—Without any swarming.

MORGAN BROS. (S. Dak.)—The colony with its one swarm.

R. C. AIKIN (Colo.)—One year with another, the non-swammer.

E. WHITCOMB (Nebr.)—A colony without any swarming, every time.

N. E. FRANCE (Wis.)—Big colonies pay best. For comb honey, "shook" swarms.

JAS. A. STONE (Ill.)—My experience has usually been in favor of the one not swarming.

ADRIAN GETAZ (Tenn.)—The one that does not swarm, by a long way. At least in this locality.

EUGENE SECOR (Iowa)—I can't say positively, but I prefer the colony that has not swarmed.

DR. J. P. H. BROWN (Ga.)—Conditions being the same, such as the honey-flow, the colony without any swarming.

R. L. TAYLOR (Mich.)—I like to have my bees swarm once, and think I get more honey that way, besides having an extra colony.

J. M. HAMBAUGH (Calif.)—A great deal depends. With a prolonged honey-flow of two or three months, the colony "with its swarm."

DR. C. C. MILLER (Ill.)—In this locality the one colony without any swarming. With a flow sufficiently long the reverse might be the case.

REV. M. MAHIN (Ind.)—I can get more honey from a colony that I do not allow to swarm. Something depends, perhaps, upon the season.

J. A. GREEN (Colo.)—I have not been in this State long enough to feel sure. In Illinois, the one that did not swarm, other things being equal.

PROF. A. J. COOK (Calif.)—It depends. I think usually it is wisest to permit one swarm when the bees so desire. I would always stop with the one.

ARTHUR C. MILLER (R. I.)—It depends upon the man, and upon the time of swarm and honey-flow. Usually the non-swarming colony is the more profitable.

S. T. PETTIT (Ont.)—Where the flow is short and sharp, without swarming will give most. Where the flow runs over several months, the colony with its one swarm will win.

C. P. DADANT (Ill.)—The colony if it does not swarm, unless the crop happens to come six weeks or two months after swarming, when two colonies would, of course, do better than one.

P. H. ELWOOD (N. Y.)—With us the colony without swarming. Where there is a later honey-flow, . . . where the late honey-flow can be counted on, undoubtedly the two would give more.

E. D. TOWNSEND (Mich.)—I take the question to mean *surplus* honey after the one or two colonies are allowed their regular amount for winter stores. With our Kalkaska bees, where the season opens early in June, and lasts during five weeks, usually, with no later flow, the colony without any swarming. Here

in Mecosta County, where the early flow is about the same, followed with a buckwheat and aster flow, the difference is not as great. Still, I think even here the colony without any swarm.

C. H. DIBBERN (Ill.)—I would get more section honey, or extracted honey, as surplus from the colony that did not swarm. If the total amount gathered is meant, I will have to admit, *a la* Dr. Miller, "don't know."

W. M. McEVY (Ont.)—Where the season is short, and ends when the colony is done, then the colony without any swarming. In localities where the season is long, and much buckwheat is grown, then from the colony with its one swarm.

O. O. POPPLETON (Fla.)—If the honey-flow occurs early in the season, and is short and heavy, the one colony will probably give most honey; but if the flow comes late, or is long-drawn-out in time, the 2 colonies will probably do best.

G. W. DEMAREE (Ky.)—It depends upon the length of the summer honey season, and the time the prime swarm issues. If the swarm issues at the right time the parent colony and its issue—if properly managed—will beat any non-swarming colony.

E. S. LOVESY (Utah)—This is rather a hard question to answer. If the colony is weak it will not do much in either case, but with a strong colony, as a rule, it would swarm unless it was divided. Personally, I could produce more honey by the latter method.

C. DAVENPORT (Minn.)—This depends upon a number of things or conditions, as, for instance, length of flow, what time they swarm, and how the swarm and the parent colony are handled. I can "swarm" any colony artificially so as to get more honey, either comb or extracted, than if they swarmed naturally, or did not swarm.

E. E. HASTY (Ohio)—Sometimes and sometimes—very often one way and very often the other. With the early harvest a semi-failure,

and a good, late yield, the two would do much the better. With those two conditions put *vice versa*, the one would do much the better. Probably the last state of things is rather the more common of the two.

L. STACHELHAUSEN (Tex.)—In this locality in some years a colony with its one swarm gives nearly twice as much honey as the same colony without swarming. In dry years, with an early honey-flow, a colony without swarming may gather quite an amount of honey. If the same colony had swarmed during this honey-flow we would get no honey crop at all.

Honey Circular for Shipping-Cases

The Honey-Producers' League has prepared, and succeeded in getting some of the leading bee-supply manufacturers to send out with their shipping-cases, a guarantee comb honey circular, intended to aid in dispelling the belief that comb honey is ever machine-made. Bee-keepers all know it is never so made, but on account of the general impression that it is, the League thought it would try to pass the truth along through the honey-dealers.

We trust that every bee-keeper who receives shipping-cases with the circulars will be sure to put one in every case just under the lid, so that whoever opens it will be compelled to sell it.

The G. B. Lewis Co. are putting the circulars in sealed envelopes with printed directions on the outside, then including them with their shipping-cases in the flat.

Should any of our readers desire a supply of these guarantee comb honey circulars, we can furnish them, postpaid, at 10 cents per 50.

That our readers may see just how the comb honey circular reads, we give it below.

"Combed" and "Extracted"

DRY WEATHER AND COLOR OF HONEY.

I do not believe that dry weather affects the color of honey, except that in non-irrigated countries it is apt to lessen the yield, so that bees, in their search for honey, work on plants that ordinarily they would leave alone. The honey thus secured is apt to be darker and poorer in quality than what they get from ordinary sources. In the irrigated districts of Colorado and Utah, where alfalfa is grown, the air is extremely dry, though the ground may be well watered. When alfalfa honey is secured free from any admixture, it is water-white in color, and I have never seen anything to indicate that the weather had anything to do with the color. In this valley, though, it is but seldom that alfalfa honey is secured alone. An average of my honey, even excluding the fall honey, which is distinctly darker in color, is of a light golden tint.—J. A. GREEN, in *Gleanings*.

BANNER HONEY COUNTY OF NEW YORK.

Tompkins Co., so I understand, has the honor of being the banner honey county of New York. Its output was over 236,000 pounds, or, figured in cars, it would be between seven and eight. When it is remembered that that county is only about 20 miles across it either way, these figures are somewhat remarkable; but perhaps it will be better understood when it is known that the largest bee-keeper in the world, probably, at the present time, Mr. W. L. Coggshall, has something over 20 apiaries within its borders. There are other counties in the United States that will show a larger output of honey, but these counties are as large as some whole States in the East. I refer to Los Angeles, San Bernardino, and San Diego, in California. All these central counties in New York yield immense amounts of honey. The territory is already overstocked, and it would be useless for an outsider to try to squeeze in.—*Gleanings*.

To the Purchasers of this Honey

The producer of this Comb Honey, and also the undersigned, guarantee that the product in these sections or small frames was all made by honey-bees.

There is no such thing as manufactured comb honey. It never was made, and never can be, newspaper and magazine articles to the contrary. If any one says there is such a thing as manufactured comb honey on the market, just tell that person that the National Bee-Keepers' Association, an organization of over 2000 members, through its General Manager, N. E. France, of Platteville, Wis., will pay \$1000 for proof of such machine-made combs filled with glucose or any other cheap syrup, and capped over by means of machinery without the aid of bees. Also, a corporation capitalized at \$300,000, all paid in, has had for many years a standing offer of a like sum for the same so-called manufactured comb honey as described, and the offer is still good. In addition to this, the bee-expert, a life-long bee-keeper, now in the employ of the Department of Agriculture at Washington, has repeatedly, in government bulletins and in public addresses, denied the existence of any such product. For evidence of this fact, refer to the report of the Secretary of Agriculture for 1904, page 83; also to Farmers' Bulletin No. 59, for 1905, pages 32 and 34, also issued by the Department of Agriculture, entitled "Bee-Keeping," by Frank Benton.

It may be well to state that the basis for these comb-honey canards is possibly due to the fact that the flavor of honey in one locality may be very different from that of another; that when one tastes of a honey quite different in color and flavor from that which he used to eat on the old farm, he concludes it is adulterated or manufactured, especially if it be of poor quality. As a matter of fact, the comb

honey from California is just as different from the same article produced in the Central and Eastern States as the fruits of that State are different from those in New England. In the same way, the honey from Texas differs very widely from that produced in Ohio, or honey from Florida from that in Texas. Some honeys, like that from buckwheat, are very dark; others are not only dark but ill-flavored, and should never be sent to market, but be sold to the baker or fed back to the bees for rearing young bees.

Two-thirds of the States in the Union have pure-food laws; and one may rest assured that, in all the States where such laws are in force, both honey in the comb and in the liquid condition, generally called "extracted," is and must be the genuine product of the hive.

The oft-repeated misstatements about adulterated honey and manufactured comb honey in the newspapers and magazines has made it necessary for The Honey-Producers' League to put out this statement, for the reason that the general public has come to believe that a large part of the honey on the market is adulterated or manufactured. If the dealer will join with the bee-keepers in helping to correct these monstrous lies, it will materially increase his sales of both comb and liquid honey.

The Honey Producers' League

GEORGE W. YORK, Manager
CHICAGO, ILL.

DR. C. C. MILLER, President, Marengo, Ill.
GEO. C. LEWIS, Vice-President, Watertown, Wis.
W. Z. HUTCHINSON, Secretary, Flint, Mich.
A. L. BOYDEN, Treasurer, Medina, Ohio.

N. B.—Do not store comb honey in a refrigerator, cold storage, or cellar. These are the very worst places you can put it. It should always be kept in the warmest and driest room you have. It is advisable to keep liquid or extracted honey in the same warm, dry place.



* Contributed * Special Articles

Comb Honey in the Home Market

BY "ILLINOIS"

Twenty-five years ago a man with 10 colonies of bees, kept in the old-fashioned way, could supply our little town with honey; now we need about a ton to each thousand people to supply the home market.

Then honey was sold by the pound, and in a small way; now we sell to consumers by the case, and if bee-keepers in their home markets would put up their comb honey in small cases of not more than 10 or 12 pounds each, and quote and sell it that way, their market would be improved.

We have told people all about honey as a medicine, and so the general public buys honey about as freely as bee-keepers buy.

Sell a woman a section of honey and tell her how good it is for the croup, mixed with lemon-juice, and she is likely to put it away somewhere until the baby has the croup, and by that time the honey may be in a condition either to kill or cure—to kill the baby, or cure it of its love of honey for good and all.

What we want is, people to use honey as an article of food, so sell to them by the case, and they will eat it by the case, and want more.

Put the retail price per case so that you can sell to grocerymen at market rates, and so that they can make a fair profit if they sell by the case, and a larger one when they sell by the section, and let them supply the demand for less than a case. You and your grocer will then be good friends, and can work together.

It is an advantage to put your name on your honey in your home market, and also use a stamp with "Keep Comb Honey Where it Will Be Dry and Warm," or something to that effect.

One thing I must say, and that is, that people become educated in regard to the quality of honey very fast, and so first, last, and all the time, *quality* must not be lost sight of. Keep all unfinished, leaky and broken sections out; and don't try to convince people that what they don't like is all right.

Good salesmen, and much talk, will not sell poor and off grades of honey a second time; and if I and my location can not produce honey that will sell itself the second time, I would better quit, for I will have to do so in the end.

My experience in city markets is small, and I know that ignorance in regard to honey prevails, yet it would seem as if methods which are successful among a few thousand people ought to be so among many, and I fully believe that what we most need is men who will get honey of the right quality to the eaters of it, in a clean and attractive condition, and then The Honey-Producers' League, which is a long step in the right direction, and other means of education, can do the rest.

I sometimes wonder if a "Honey-Eaters' League" should not be organized to educate a large proportion of our bee-keepers in the handling and care of their bees and honey.

The marketing of extracted honey is quite different from that of comb, but the same principles apply to both—small quantities used as a luxury, large quantities as food.



Selling and Shipping Honey

BY F. GREINER

If every lover of honey had a fair opportunity to obtain all he wanted at a reasonable price it would not be necessary to hold over a part of our crop. We bee-keepers do not reach consumers—there lies the trouble. We must aim to distribute the honey we produce over a larger territory, *each one of us*.

If we find it necessary to place our crop in the hands of commission men, it is not advisable to ship it all to one firm. It may work all right, and it may not. The practice is altogether too hazardous. One friend writes me from a neighboring county, saying he saw my honey at a certain house in Boston, and went home and shipped his 7000 pounds to the same firm last fall to be sold on commission, but it seems he has not yet received his money for it; the honey is not yet sold.

Another friend in my own town shipped the larger portion of his crop—all the white honey—to the same firm, and has not yet had his pay. My own honey was sold to the firm before it went, at a fair price. The honey the two friends shipped would have netted more than what I had received, had it been sold at that time. But it seems to me the firm could not handle so large an amount of honey, and made no effort to find an outlet somewhere else. They allowed the time when it might have been sold at a good price to pass by, and now it is on their hands and the producers have no money to use. The chances are they will have to wait till next fall, and then take a small price.

It always has seemed to me a poor policy to ship a large quantity of honey to one firm at one time, when it is to be handled on commission. I have always sent small lots—not over 400 or 500 pounds at one shipment. When that was sold I shipped more. I also tried different markets. In this way I received some cash right away, and I selected those markets for further consignments which gave me the quickest returns and best net prices. I never have been caught with comb honey on my hands when winter came on, following the plan as outlined.

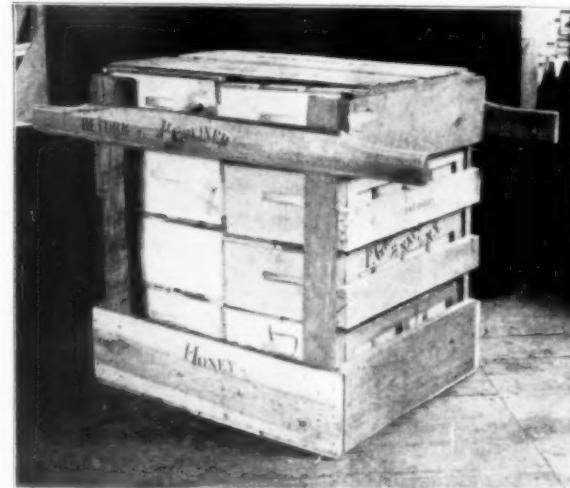
I want to sell for cash if possible, but I am never at a loss to know what to do with my honey if the cash buyer does not come around.

The firm to whom my two friends shipped their honey is all right. I have dealt with them for years, sold to them a number of times, but last fall they had too much on their hands, and should have so informed their shippers.

HOW BEE-KEEPERS OBTAIN LOW FREIGHT RATES BY COMBINING WITH FRUIT GROWERS IN NEW YORK STATE.

The fruit-growers of this vicinity formed an association some years ago, having for its objects obtaining low rates from the railroad companies, and to oversee the shipping of the fruit, particularly grapes. The association hires a man to see to the loading, and another one is sent to Boston, where all the fruit is sent, to oversee the unloading. A great many dollars have thus been saved to the fruit-men yearly.

While originally the association was formed for the benefit of fruit-growers, concessions have been made to peach, plum and even apple growers. I have also shipped butter, eggs, chestnuts and honey in the same cars with the grapes without objections being raised by the railroads. The rate on all these products to Boston is but 35 cents per 1000 pounds, which I consider a low rate. The transit is quick and safe. Our own men and we ourselves handle the products. There is seldom any smashing. When our honey can be corded



METHOD OF PACKING COMB HONEY FOR SHIPPING.

right in with the grapes (the grapes being in five-pound baskets) no better way can be devised; but I aim always to get my honey into the center of the car, the grape baskets thus forming a cushion on each end.

When honey must be shipped by way freight in small lots, to insure safety it should be put up in specially constructed crates, as shown in the picture herewith. They may be constructed on a different plan, but this, it seems to me, is the simplest. It is doubtful that any straw put under the honey, as is recommended, increases the safety or is a further guarantee against breakage.

Ontario Co., N. Y.

Honey Results Not All in Management

BY DR. C. C. MILLER

I have read with much interest the article by my good friend, G. M. Doolittle, page 453. Just a little bit hard not to feel envious because he can do 30 pounds better with a colony than I can, but I've concluded to be good and congratulate him. I want, however, to warn beginners not to conclude too hastily that the difference in the plan of management is solely responsible for the difference in yields.

Remember, I'm not discussing the point as to which management is better. I'm only saying that Mr. Doolittle's greater yield does not *prove* that he has the better plan. A number of things might play a part. With the same management, Mr. Doolittle might be more skilled and more careful in carrying out details. He might have better bees. He might have a better season; for seasons differ, and it may be that next year I shall have a better season than I've ever had before. (But I'm hardly expecting it.)

There's another item that probably makes more difference than all other things combined. Mr. Doolittle got one colony to store 60 pounds in three days. I can't do that. I never did it. I don't expect ever to do it. I haven't the basswood trees. I haven't some of the other things Mr. Doolittle has. I am in what is called a poor honey region, with white clover as the only source of surplus, although of late years cucumbers or something else seem to help out in the fall. So far as I know, Mr. Doolittle has as much white clover as I, but I think the greater part of his surplus comes from other things, basswood looming up as the greatest producer. Without basswood I don't think he could get 22 pounds a day. I think that's at least 12 pounds a day more than any colony ever stored for me, or could store from white clover.

It may do no harm to dream a little about what I might do if I could turn my bees loose on Mr. Doolittle's pasture during the basswood harvest. It would be hardly reasonable to count on 12 pounds a day extra throughout the basswood season, but I suspect that if the bees of that best colony of mine had had the chance upon that basswood that gave Mr. Doolittle 22 pounds a day, they would not have ruptured any blood-vessels in storing 6 pounds a day more than they could on clover. If they had done that for a week it would have made a difference of 42 pounds, distancing Mr. Doolittle's best by 12 pounds.

Aside from advising beginners not to draw hasty conclusions, a moral of the lesson is not to be too hasty about settling in a place of poor pasturage, especially not to settle in a place with only one honey-plant for surplus, where the bottom falls out a good many years because of the failure of that one plant.

Most likely some one would like to ask why I settled in such a place. I didn't know any better. For years bee-keeping was an avocation, and by the time I decided to make it a vocation so many ties had bound me to the place that I couldn't break loose. Even now I sometimes dream that if an earthquake or something else should tear me loose from this "locality," so I could be free to form new ties elsewhere, I should begin to look for a bee-keeper's paradise just as soon as I could wipe away the tears enough to see clearly where I was alighting.

McHenry Co., Ill.



The Honey-Producers' League and Section Honey

BY DR. G. BOHRER

On page 596 of *Gleanings*, Mr. Virgil Weaver states a truth which, in my opinion, should not be overlooked or ignored by The Honey-Producers' League. He says, "The section has done more harm to the comb honey market than all other agencies combined." He claims that the comb-honey lie was caused by section honey. I do not know just how nearly correct this statement is, but I do know that all who believe the artificial-honey and artificial-comb falsehood invariably point to the section as the chief support of their position.

If this embraced all the harm the section has done, we might hope that, in time, the masses would learn that there never was, in all time past, is not now, and probably never will be, such a thing as artificial comb honey. But the so-called pound sections, which seldom ever contain a pound of honey, cause many persons to let them severely alone, for the reason, as they very truthfully say, they do not weigh a pound, but are sold at pound prices, and that they do not pro-

pose to pay for a pound and accept from 1 to 4 ounces less than a pound.

If the section were consigned to eternal infamy, and comb honey in shallow-super frames substituted, and sold strictly by weight, very much more honey in the comb would meet with ready sale than is sold as matters now.

I have made it a rule to sell section honey by the pound, and get 14 cents per pound for it, and I sell comb honey stored in shallow super or extracting frames at the same price, the honey being cut out of the frames, which makes of it what is known as "chunk honey." In this shape I am free to admit that it is short of much "cosmetic ornament," which is all that the section does for honey, by keeping the cell-cappings intact, as a rule, so that the honey does not escape from the cells and run over the comb surface and muss the section or shipping package. That is, in case the shipping package is not so roughly handled while in transit as to break the honey-combs. In such an event the dealer can not stand the loss, and must sell what does reach him in safety at a higher price, in order to save himself. Thus it will be seen that the consumer pays dearly for the useless ornament furnished by the section.

I suggest that The Honey-Producers' League advertise the so-called pound section as not a pound, and urge both honey-producer and honey-dealer to sell section honey by actual weight, and not by the piece and under the name of a pound at pound prices, when it is not a pound by perhaps several ounces.

In a brief period of time the masses will let the section honey severely alone, for they will soon learn it to be an expensive luxury, and will call it "dude honey," leaving out the term "pound section."

I am fully aware of the fact that it is claimed by our bee-papers that there is no such thing as a measurement for an exact pound section, which is true, but the term "pound" sticks to the section tighter than propolis, and serves the purpose of causing the public very largely to denounce it as a deception and a fraud. Lighter sales of honey are the natural and legitimate result. Most of the counters of our honey-dealers bear computing scales. Let them buy and sell honey by weight. If they refuse, let The Honey-Producers' League not only advertise to do so, but actually buy and sell by weight, and other dealers will be glad to follow suit.

In addition to this, advertise extensively the fact that bee-comb or beeswax is not at all digestible, and that in the extracted form honey is the most wholesome as food.

Also, labor incessantly for a national pure food law which will impose a severe penalty for adulterating honey with glucose, keep on nailing the artificial comb honey lie, and educate the masses to the extent of knowing that comb honey has never been manufactured by man.

Rice Co., Kans.



Selling Honey in the Home Market

BY J. M. HOBBS

I will explain how I dispose of my honey in the home market. I sell nothing but comb honey, and have sold all I could produce for the last 14 years right in this city and vicinity. I get 12½ to 15 cents a pound, or a section.

I sell about 1,200 pounds or sections a year, and it is all sold by Dec. 1st. When the last pound is sold I have received the cash for every pound sold, each year, so far, and we keep some 150 to 200 colonies right in the city.

This is how I have done it: In the first place, I don't use any separators in the supers. I use the standard sections, which will weigh a pound, and I always make them clean and attractive. I never sell a case of honey that does not weigh 24 pounds net. My customers know this, and they know that they get from 4 to 6 pounds more from me than they do from those who use separators; and they know that no other man in this state sells a better grade of honey in the comb. They also know that I always give 16 ounces, or more, to the section, and that when they buy of those who use separators they seldom get over 14 ounces for a pound.

The most of the bee-keepers who use separators do not use them always for the reason they say, that is, to make the honey of a uniform appearance, but, as I have said before, it saves them 4 to 6 pounds to the case. Those who use separators for short weights also want as many supers as they can get in one season, therefore they cannot see a super remain on the hive a moment after it is capped. They want it off so another can be put on.

My customers have learned that unless honey is left on

the bees until well ripened it is little better than sweetened water and will never be good honey no matter how white and fine it may look. This fad about looks does not deceive them into buying short weights and an inferior quality.

I always have been honest with my customers on all of these points, and they know it. They can tell my honey anywhere they see it, as my name is on every section and once I get a customer he gets for me his neighbor, and I sell most of them one-half case or 12 pounds at a time.

I also make light cases that hold 12 sections, and deliver the honey in them. The customer leaves the honey in them until spring, or till the honey is used up. I have a book in which I keep the names of the customers where I left the cases. I request them to save the cases for me, and I go around in the spring and gather them up.

Once you get a customer in this way, and deal honestly, you will gain others without any soliciting. This has been my experience, and I cannot supply my present demands. last season I made 12 pounds a wholesale rate, and less 15 cents a pound.

To get a customer, and instead of losing him the next season have him come and bring one or two more with him, is the way to sell your honey in the home market. If one is honest this will work nicely, but if you must use separators in supers, you will have to order sections large enough to hold 16 ounces to the pound, for the 14-ounce pound is dishonest as the grocer's 3-quart gallon of molasses, or 12-ounce sugar done up in a nice, little, dainty package, as M. A. Gill says on page 213.

The way to dispose of anything is to make it attractive, but in doing so do not use deception assisted by dishonesty. One can use care without dishonesty. One can put up a full pound as tastily as he can a 12-ounce pound, or a full quart can of honey as showy as one that is a little less.

If any one will follow out what I have said, and does not dispose of his honey in his home market it will be because he has a good deal more honey to sell than I do, or has less customers to supply. But once you get the confidence of the public for honest dealing, the rest is easy. Your last sale is always good seed sown.

Yankton Co., S. Dak.

Honey Education for the Public

BY C. A. STARK

The widespread belief in the adulteration of comb honey is, to my mind, the cause of the low price and small demand for it.

To illustrate: I live in a small village and have an apiary. There are two groceries here that handle section honey bought from commission men in the city, yet in this small place I have never been able to supply the demand for my honey at 5 cents per pound advance over prices at grocers. Even the grocer pays me, when I let him have honey, my regular retail price in order to be able to furnish pure bees' honey to his best customers.

Last fall one of these grocers sent to my house to know if I had honey to sell. I sent word that I had sold all I cared to sell, wanting what I had left for family use. He sent back to say that his little son was sick, and wanted honey. Couldn't I spare him a pound? Of course that appeal could not be denied, so selecting a choice section of honey I carried it down to the store myself.

Almost the first thing that attracted my attention on entering the store was a case of fine looking honey. I was astonished; thought that perhaps there was some mistake. But on accepting the honey he remarked that he was particular what his children ate, and that the honey in the case was from the city, and for all he knew was made there in some factory! Right there I did some missionary work along the line of comb honey.

I have had persons try to buy honey of me right in those stores where nice section honey was on sale, and not getting it of me they would walk out without buying, because they doubted its being pure bees' honey.

Another time, one grocer bought a small stock of extracted honey put up in quart Mason fruit-jars. After keeping it until he was tired of looking at it he closed it out at 20 cents per jar—good honey, too—while I was selling my extracted at 30 cents per quart, the customer furnishing his own jar.

The remedy for this condition, I think, is in publicity. Educate people to know pure honey by sight, in case of comb

honey, and by taste in extracted. Carry samples. Show them that no two sections are exactly alike, while they would be exactly alike if made by machinery.

In selling extracted, if possible secure a sample in the original package, of the glucose mixture sold for honey. Compare it with your own pure honey. Let customers sample it. You will not find it difficult to sell your honey, I think.

It has been my experience that the only thing necessary to make sales is to convince your prospective customers that you have pure honey of fine quality, and of course that is the only kind you should ever attempt to sell for table use, if you care to continue in the business.

Putnam Co., Ill.



Keeping Comb Honey in Good Condition

BY G. M. DOOLITTLE

A subscriber to the American Bee Journal wishes me to tell how to keep honey when off from the hive so it will be as good when he gets ready to market it, as it was when he took it from the hive. He says that his honey almost always sweats and in some cases becomes nearly sour before he is able to prepare it for shipping to market. This being especially the case when the season happens to be damp and rainy after he takes it off.

It is barely possible that the correspondent removes his honey from the hives before it is fully sealed. This should never be done, unless it is at the close of the white honey harvest, so that the dark honey shall not be mixed with the white, or at the end of the season in the fall, when, of course, we are compelled to take off all sections.

Fully capped honey is not as likely to become watery and sour as is that which is unsealed, and as unsealed honey in any part of the section makes that section more or less unsalable, it is always best, if possible, to leave all sections on the hive until they are fully sealed.

But I mistrust the trouble with the honey has been in its being kept in a room not sufficiently warm, or lacking in ventilation. Any room, or article in such room, will draw or take on moisture rapidly if allowed to become much cooler than the surrounding air at any time, and this room might have been colder than the surrounding rooms, hence attracted moisture to it. If the room had been well ventilated it would have helped much; and had it been thus, coupled with suitable warmth, I cannot see what hindered the honey from evaporating and keeping all right. I have found that a high temperature in a room is of very little service if said room is so tight and close that no draft of air can carry off the moisture. Consequently honey should not only be kept in a dry, warm room, but there should be enough ventilation in and about the room to carry off all moisture which evaporates from the honey; and the larger the pile of honey stored in any room the greater should be the draft or ventilation. Where such a room can be had, even honey that has begun to sweat can be brought back to fairly good honey again; but honey that has been kept in a poor room until it has begun to sour can hardly be made salable again; for honey which has once soured will never become fit to put on the market, and no one who cares anything for his reputation or the good of the market will ever do such a thing.

The warm, dry, airy room will help much to thicken even the worst sweating, souring honey, but it will never bring back its original flavor. I have even returned such honey to the bees, and let them try their hand at making it marketable again; and while they will dry and clean it up even if they have to remove it from the cells and redeposit it again, still it is an unpleasant job all the way around, and at best the honey never looks as nice as when first removed from the hive, and in taste it is very far from good honey from the kind of flowers from which it was gathered.

The best thing that can be done with any honey which has soured is either to extract it and keep it for feeding purposes, after scalding it, or cooking till sufficiently thickened, allowing the bees to clean out the combs; or feed the honey to strong colonies right from the combs, when in either case the combs can be preserved for bait-sections the next season after the bees have thoroughly cleaned them.

Then it is not well to store any comb honey directly on the floor, for where so stored the air cannot go under the bottom of the pile, and through lack of circulation of air under the bottom, honey will become watery in the most dry and well-ventilated room at the bottom-back side of the pile.

Some kind of a platform should be fixed on which to pile the honey, and this platform should be made of open-work so that the honey resting on it can not only have a current of air going up through it, but all about the bottom of the pile.

When I first commenced keeping bees, I stored my comb honey in a room on the north side of the house, and piled it directly on the floor, thinking I was doing the proper thing, as the most of those having bees near here stored their honey in the cellar at that time. But when I came to casing that honey I found that the honey next the wall of the room and the floor had soured and the honey was bursting from the cells, while that higher up in the room, and out from the wall, was still in good shape, as was considered at that time. I took the hint at once, and the very next year found me with a temporary platform fixed of slats, spread apart enough so that the edges of the sections would just catch on them, the platform being raised up a foot from the floor. When another tier of sections was to go on top, strips were placed between, and so on clear to the top of the pile, and in this way there was no hindrance to the air from circulating all round the sections from below, from above, and from between, and around the wood holding the honey. I now had the problem solved, and the same has proven good for more than a score of years.

All these things are little matters, but the *whole* of such little matters applicable to every phase or part of bee-keeping life, when put together to make *one great whole*, makes all the difference between success and failure in our beloved pursuit, according as we understand and use them.

Onondaga Co., N. Y.



Re-queening Colonies During the Summer

BY C. P. DADANT

The re-queening of colonies, or replacing of queens by younger ones has been much discussed. Some of our large producers have advocated the replacing of queens every two years. One of our Western leading bee-keepers has even advised and practiced re-queening, that is, removing the queen to compel the bees to rear another, and thus making an interruption in the breeding. When this method was recommended, I wondered whether it was possible to follow such a method and succeed. My view is that the bees need their queen at all seasons. It is true that they need her less in the summer, after the crop is over, than in the Spring before the crop begins, but the depletion of bees by colonies in the summer is so prompt that there is need of constant refilling of the ranks by new additions, though they need not be so numerous. So I felt that this was a move in the wrong direction.

Later, I had occasion to meet the person in question and to inquire as to the success of his idea, and he acknowledged that it was not satisfactory, though in his opinion this lack of success was due to the conditions of the crop and dates of the harvest of honey. But I doubt very much if any conditions can be found that will justify a killing of queens to compel the bees to rear others, thereby losing some 20 odd days of breeding. In addition to this loss there is also a risk of the loss of some of the young queens. In fact we can safely calculate on losing about 10 percent, that will either be lost in their wedding-flight or that will prove worthless. To eliminate good queens that may prove still good for another year, and run the risk of having a part of them, at least, replaced by worthless ones, is a mistake.

It is also a mistake to re-queen hives that have good, prolific queens, just because they are two years old. If the bees did not usually change their queen by rearing another as soon as they notice that she is failing in her laying, there would be good excuse for such an action, but there is no doubt that the bees do change their queens whenever they lessen their breeding, and it is only in exceptional cases that a colony allows itself to run down because its queen has entirely lost her fecundity. Those who clip their queens' wings have noticed how often these queens are replaced without the knowledge of the apiarist. If this were not the case, an apiary in which no queens were replaced artificially would soon dwindle down to nothing.

But it is advisable and even necessary to replace queens when there are evident signs of lack of prolificness. In my experience, extending over nearly 40 years, with several apiaries, I have noticed that the bees are less likely to replace a queen that is only of very moderate prolificness, but whose

capacity is unchanged; that is, a queen that from the first has been of but little value, than to change a queen which has been all her life vigorous and begins to fail. Our attention must therefore be directed to the naturally inferior queens—to those colonies that have given but little crop. It matters but little whether the queen looks bright, if she has not filled her combs with eggs she should be condemned, and looks should not be considered. Not only must those queens be changed, but the bees must not be allowed to rear others of the same blood. Too often our bee-keepers have paid attention to the looks of the bees rather than to their working qualities. That is why so many of our bright Italians are sluggish and slow, though beautiful to look at.

The months of August and September are good months in which to change queens, because queens are plentiful and cheap at that time. We have also been able to discover the poorest and the best colonies.

Those who have produced neither honey nor swarms can probably be made to give a good harvest the following year by changing the queen.

If we expect to rear our queens ourselves, we must be sure and have the queen-cells from the most prolific, and at the same time the gentlest colonies in the apiary, if these two qualities can be found united in the same colony. If we breed from the best honey-producers we will be sure to make no mistakes. But let the queens be reared and laying before we attempt to change our breeders. Better have a queen of mediocre value in a hive than an interrogation point.

As a matter of course if we buy we must know the man of whom we buy our queens, and we must get young queens from an apiary where foul-brood is unknown, for there is but little doubt that this disease may be transmitted by the queens, though it is probably only in exceptional cases. Honey, being used in the larval food is much more likely to spread the contagion than any other thing. But there is too much danger in foul-brood for us to risk anything from a foul-broody apiary. There are plenty of good, reliable breeders, and the business of queen-rearing has become so much of a specialty that it is hardly worth our while to rear queens. I never realized the truth of this as vividly as I did when at the St. Louis Convention. Mr. Gill, of Colorado, one of the most practical honey-producers in the United States, said that it did not pay him to rear his queens; that he preferred buying them, although he needs several hundred every year. Scientific queen-rearing requires a special outfit, and daily care, and is better conducted as a specialty.

Let us bear in mind that the best time to introduce a queen is during a flow of honey; that robbing is the greatest incentive to the killing of strange queens by the bees, and that after we introduce the queen it is best to let the colony alone for several days. Queen-introducing is always more or less risky. Some apiarists will tell you that there is nothing difficult about it, that they have always succeeded. You can just rest assured that the man who has always succeeded is the one who has done the least of it. We practiced introducing in former days when we imported some 40 queens from Italy every season. The best method, in my opinion is the one now generally used by breeders: Cage the queen in the hive, just after removing the old one, and let the bees liberate her by eating their way to her.

Hancock Co., Ill.



Brood-Frames and Frame-Spacing

BY C. W. DAYTON

I wish to answer Mr. Latham, on page 154, that if a bottom-bar is sawed out $1\frac{1}{8}$ -inches wide, in six months it will have shrunk to about one inch. A top-bar which is $1\frac{1}{8}$ at first will be 1-16 less in six months, regardless of how dry the lumber is when it is sawed.

I use what I call full width bottom-bars. That is, a bottom-bar the same width as the top-bar, and on account of shrinkage it makes them finally about 7-16 inch apart when in use, with $1\frac{3}{8}$ -inch spacing. With side-bars no wider than the top-bar, when any certain frame is to be taken out we can move the frame on both sides away probably about $\frac{1}{4}$ inch, though there may be honey along the upper edges of the combs. This gives somewhat less than one inch "play" when the bottom-bar comes up past the top-bars.

The ends of the top-bars rest in notches $1\frac{1}{8}$ inches wide in strips of galvanized iron. These are used instead of the

usual tin rabbet—like the spacer in the "St. Joe" hive, put out by Mr. Abbott, only his notches are twice as deep as those I use. But I employ another contrivance that makes up for the difference in depth of the notches. My bottom spacer is of wire, soldered solidly to a strip of galvanized iron, which is nailed fast to the bottom-board. This wire projects upward between the bottom-bars $1\frac{1}{4}$ inches and is shaped like the rounded or closed end of a wire hairpin. Quinby advised a wire spacer, in the appendix of his "Mysteries," published in 1860, but he fastened it to a strip of wood. Soldered to iron is better. In fact, by soldering it in a permanent position is the only way wire can be used at all. But when so used it becomes the best spacer.

If it were not for these bottom-spacers, the full width bottom-bars would crush bees when their edges pass one another in the bottom of the hive, but before they come together by about $\frac{1}{2}$ inch they are caught between the spacers and guided into their positions.

On page 38 mention is made of frames which were 10 to 12 inches. Dzierzon favored a hive which was only 10 inches wide. Langstroth adopted a hive having a 14-inch frame, the same as your present adoption. And he probably never would have used any other length had not Quinby told him of long hives being good winterers. Then Mr. L. went to work and made his hive with frames 24 inches long.

It is pretty certain that Quinby adopted the length of frame on account of wintering while the depth was all right for the production of comb honey by side-storage. But for extracting, so large and deep frames are unwieldy. But extractors were unknown at that time. If I am not mistaken, the British Association adopted the 14-inch frame as the standard. Cowan and Cheshire both use the 14-inch length. And Mr. Root also used and preferred the 14-inch length; so all evidence goes to show that that was the best length.

As to those closed ends I have no love for them. It seems to be a cheap way of providing an outer casing. Americans are getting to keeping bees entirely too cheaply. I expect they would have their colonies camp out under a little piece of canvas if they could get the honey that way. If one bee gets smashed between two side-bars their purpose is spoiled. Bee-glue will begin to accumulate so as to need scraping every time they are handled—a la Hyde. I haven't scraped a frame in 20 years.

Gallup's plan of an outer protection was to make the super or cover 12 inches deep. Then tack the strip which the cover rested upon, and which extended all around the brood chambers some 8 inches below the upper edge of the brood hive, so as to telescope. Then put a good chaff cushion in the cover over the bees. I saw these in his apiary at Osage, Iowa, in 1881. I would think a colony would be about as cozy in that fix as in the old straw hive.

MARKET CHANGING FROM COMB TO EXTRACTED.

I find it easy to shape a market according to what can be produced for it. When I came to Southeast Los Angeles, ten years ago, all the stores were selling comb honey and no extracted. Now since we have been pounding away in the same spot and manner with extracted honey, there is not one case of comb honey sold there in a year. And the five stores there know better than to get any comb honey in stock. They all have a good trade on extracted. A pound of comb honey could not be found within three miles of Florence. Yet in all other stores about the city comb honey takes the lead. Now, while a hive arranged for the production of extracted honey costs about the same as for comb honey, I think a hive built for the production of extracted especially, can be run with one-third the labor.

Los Angeles Co., Cal.



Our Country's Undeveloped Aparian Resources

BY PROF. A. J. COOK

I have just made the entire transit of our great country and I have been greatly impressed with the apparent magnitude of unused bee-forage. I made a brief stop on the Sacramento river, and while there visited my friend, Thomas W. Stevenson, who today owns an apiary which as he informs me rarely fails to give a crop, in precisely the same locality that his father used for bees years ago. Indeed I bought honey from his father from this same apiary over 40 years ago.

The reason that Mr. Stevenson is so uniformly successful is not far to seek. He runs a large and successful dairy,

and owns great fields of alfalfa. Indeed, he is in one of the best alfalfa regions of the Coast. Here, as in the San Joaquin Valley, unlike the alfalfa bloom of Los Angeles County, the alfalfa flowers secrete richly of nectar.

While in this region, I visited the Lisbon Reclamation Tract, on the Yolo side of the river. It was never my pleasure to look upon finer fields of alfalfa. Hundreds of acres of this magnificent plant could be seen at a glance of the eye, and much bloom was in evidence. Yet there were very few bees so far as I could see. As the conditions here are so similar to those on the Stevenson ranch, it seems almost certain that this would be a good region for the apiarist.

As we came north along the beautiful Shasta Route, through the Sacramento and Klamath Valleys, and thence on into Oregon and Washington, it came to me over and over that here, as on the Sacramento, much nectar was going to waste because no apiarist was there to utilize the rich floral resources of the region.

As we came east over the Northern Pacific, through Montana, North Dakota, and Minnesota, the same condition was apparent. Surely, we have a wonderful country. The man's soul must be very dead, indeed, if he does not exclaim proudly, "This is my own, my native land." Probably the bee-keeper of no other land has greater reason to boast. Yet I doubt if we have even more than touched the aparian possibilities of our great country.

Since making this trip across our continent, I have asked one who is in position to know, if there are not successful honey-producers in all these regions. He answered, "Yes, but very few of them." This makes me more certain of the two positions which I take in this article: Excellent bee territory, very much of which is not occupied.

IMPORTANT WORK FOR THE DEPARTMENT OF AGRICULTURE.

The fact of flowers does not necessarily argue a honey region. The flowers may bloom when bees are few in the hive, as in case of most fruit-bloom, and thus, while these are valuable, unless they are supplemented by later flowers, such regions are worthless for bees.

Again, climatic conditions may stay nectar-secretion. I have often referred to the fact that while alfalfa is a great honey-plant in several States and regions, in parts of California it seems almost worthless for such purpose. For this reason, it would not be wise to embark in the bee-business in any of the promising valleys mentioned in the above paragraph, until an actual trial had proved the regions. This kind of knowledge is of great general importance, and it ought not to devolve upon the individual to gain it. What better work could the Agricultural Division of the Department of Entomology at Washington do, than to determine just this point?

Which of the great valleys of the West are really valuable for bees? Surely such knowledge is most desirable. It is to be feared that it will be long delayed, greatly to the detriment of our people, if left to individual enterprise. Great economy could be practiced if the Government should undertake in scientific fashion to determine these facts.

AGRICULTURAL WORK AT WASHINGTON.

Without doubt all our bee-keepers have read with more than passing interest, the important article in one of our leading bee-papers, by Mr. Frank Benton, regarding his trip to the Orient in search of new varieties or species of bees that we may possibly improve our apicultural possibilities. I have long thought that such work might well be undertaken, by the Government, and urged it upon the Department of Agriculture several years ago. Yet I am asked the very pertinent question, Why did not Mr. Benton give the article to all our bee-papers? He, as an officer of the Government, is working for the whole people, and surely he, and Dr. Howard as well, would be glad to have the work of the Department receive the greatest publicity possible. It would have been very easy for Mr. Benton to have furnished all the bee-papers with duplicate copies of the article. It is equally certain that all the papers would have been glad to have published it. Of course, they are not so eager, if the publication is of necessity delayed and so seems to indicate a lack of enterprise on the part of the editor.

I am sure that this matter has only to be brought to the attention of Dr. Howard and Mr. Benton to secure the desired change.

HONEY CROP IN MICHIGAN.

I think I have called the attention of our readers to the fact that the present season has been disappointing to the

bee-keepers in California. The abundant rains gave great promise, but the exceptional cold of the early part of the year interfered greatly with success. In the East, the season has been one of excessive rains—indeed, one of the wettest seasons ever known. If I am correct, such a season in the East is favorable to a generous honey crop. Of course, if the rains preclude the flight of the bees so that they cannot work, or if the season is too cold for the secretion of nectar in the plants, there may be a dearth of honey even in these wet years.

I think the present season has been wet and cold throughout the East, and I believe, until quite recently, the weather has been so cold that the honey promise has been disappointing. This seems not to have been true in this part of Michigan. At Owosso, where my brother has a large apiary, he informs me that he has already secured a large amount of honey, and the bees at the present time (July 19) are gathering very rapidly. I believe it is generally conceded that the honey crop of Michigan this year will be well to the front.

SAGE HONEY.

Mr. Milo Smith, one of our readers from California, writes me that in his section, black sage produces much more honey than does the white sage. I think a good many bee-keepers in California have the same feeling. I think the honey from all the sages is so much alike that it would be indistinguishable. The fact that the black or ball sage pushes farther up into the canyons would certainly give it a wider range of bloom. It often blossoms much before the white, and the flowers continue for a long period. Its locality is usually also more moist, and thus adds to its certainty as a honey-producer. I think that very likely the preference of either plant would be more due to surrounding conditions than to the plants themselves.

I did not wish to give the impression in my articles that sage honey is superior to clover, linden or mesquite. The honey from all these sources is so excellent that it would be invidious to make comparisons.



Doctor Miller's Question Box

Putting on Supers—Winter Stores

1. If one should give a super to a colony of bees when the brood-frames were about half full of brood and honey, would the bees leave the frames below and work in the super, or would they fill up below first?

2. If one should take only what honey is stored in the supers at the close of the season, would there be any danger of taking too much away from them so they would not have enough to winter on, or would they provide for that in the frames below before they filled the supers?

3. Is there any danger of giving a super too soon?

MAINE.

ANSWERS.—1. If strong enough they might work in both places. If they had only strength enough to work in one place, it would be below; and in general they prefer to work as near the brood-nest as possible.

2. Generally not, but sometimes, especially with a small hive, there would be danger of a sudden close of the harvest with so much of the brood-chamber occupied with brood that there would not be enough winter stores.

3. Yes, if you should give a super a month before the harvest it would be making the bees keep up the heat unnecessarily in just so much more room.

Cutting Out Queen-Cells—Honey Sections vs. Strawberry Boxes—Yellow Bees

1. Do you think it is all right to cut out all the queen-cells in a hive when the second swarm goes out? I cut them all out and hive or catch the second swarm in a hiving-box, then put them right back.

2. At swarming time I have some hives with full-size combs, and most of them with space of $\frac{1}{2}$ inch not attached to the bottom-bar. When hiving a swarm I tip the hive

over till they will work up on the top-bar. Has this plan been tried already?

3. Are there more honey-sections or more strawberry boxes used? I mean in the United States, on an average, right through?

4. Which kind of queen do you think is the better? I have seen some very yellow and some pretty black ones in my apiary.

5. Do you call the yellow ones Italians?

6. When does basswood blossom here in Marathon Co., Wis.?

7. How often is the average time to go through the hives and cut out queen-cells?

WISCONSIN.

ANSWERS.—1. Yes, that will work all right, providing you don't miss any cells. If you miss any the swarm will come out again, but of course you can return it again. The plan is a good one where you wish to keep up the strength of the mother colony, but many prefer to have the force mostly in the swarm, setting the swarm on the old stand, the mother colony close beside it, then moving the mother colony to a new place a week later.

2. Yes, many have tried it, and some hives have been constructed with especial reference to turning somersaults.

3. I don't know. My guess would be that the strawberries have the majority.

4. It isn't a matter of color. Some black queens are better than some yellow ones, and some yellow ones are better than some black ones. And there will be two young queens from the same mother, one light and the other dark, one good as the other.

5. Yes, but Cyprians and others are also yellow.

6. The time varies in different years. This year it was probably not far from July 1.

7. That depends on the management. The majority of bee-keepers do not kill cells at all. If you mean to destroy cells with the object of hindering swarming, it should be about once in 10 days. But in the majority of cases that will not prevent swarming, only defer it for a time.

Itching from Bee-Stings

Is there any danger from bee-stings that cause intense itching all over? I got a lot of stings on my right hand the other day. I put my hand into a tub of pond-lilies, bees and all, and kept it in about a minute, then took it out. There were lots of stings in my hand, and I pulled them out. In about 5 minutes I was itching all over. It was something terrible. I knew that something must be done right away, so took a big drink of whiskey. In a short time I was better. I have handled bees for 10 years, and never had anything like that before. I did not mind one sting, nor half a dozen. Possibly my blood was poor, but I am in fine health, all the same. I hope it will not happen again, for once in 10 years is often enough to take a drink of whiskey.

MAINE.

ANSWER.—I suspect you would have done just as well without the whiskey, and I'm sure you would have been better off without that minute in the pond-lily tub, for during that time the stings were busy pumping in poison. The stings should have been scraped out immediately. Possibly a wet pack would have been a good thing. It is not likely that there is danger of anything more severe another time, although one can not always tell.

Superseding Queens—Introducing—Building Comb—Danzembaker Hive—Drone-Brood in Sections—Foul-Brood Law in Illinois

1. What time of the year is the best to supersede old queens?

2. Should they be superseded while the bees are working in the sections?

3. If I want to introduce a queen to a colony that is working in a super where can I place the introducing cage?

4. The directions on the cage say to place the cage over the brood, but as there is only $\frac{1}{4}$ -inch space between the frames and the super, I can't put the cage there, and if I space the brood-combs wide enough apart to put the cage between them, won't the bees build comb between the two frames?

5. When I receive a queen from the mail, should I take out the escort bees before introducing the queen?

6. If I take a queen from a colony and replace her with a caged queen will they build queen-cells while the queen is caged?

7. Have you ever tried Doolittle's plan of getting worker-comb and section honey built at the same time, as described in "Gleanings," pages 723 and 724? If so, what is your opinion of the plan?

8. Will bees build comb behind the division-board of a hive if there is more than a bee-space behind it, say $\frac{3}{4}$ of an inch, if they have room to work in the sections?

9. What are your objections to the Danzenbaker hive?

10. I have one colony of bees in a 10 frame dovetailed hive that has all the frames filled with brood, and one of the supers has drone-brood in the bottom of the sections. What shall I do with it?

11. Has Illinois any foul-brood law? ILLINOIS.

ANSWERS.—1. Most of the superseding by the bees occurs toward the close of the honey harvest, and there is probably no better time.

2. There would be no objection to a change of queens during the latter part of the honey flow; no bee is living in the time of the harvest that hatches from an egg as late as three weeks before the close of the harvest.

3. Anywhere where the bees "do congregate"; there being no better place than right between the combs in the brood-nest.

4. You will find that you will not need very wide spacing if the brood-combs, right where there is brood, are shoved together till the cage is crowded into the brood, and the bees are not likely to trouble by building comb there. If they do build a little it can easily be cut away.

5. Generally they are not taken out.

6. Yes, unless you follow Mr. Abbott's plan—a good plan, too—of caging the queen for 2 or 3 days, leaving her so the bees can free her, at the same time you remove the old queen.

7. No, for I have combs built on full sheets of foundation; but I think Mr. Doolittle's teachings, as usual, are sound.

8. I think not.

9. Difficulty of handling rapidly without killing bees, and trouble with pollen in the sections, are two of the reasons. Another reason is that I don't know of advantages enough to make them preferred to the dovetailed.

10. There is nothing but to cut the brood out of the sections, using the rest of the section as chunk honey. To avoid the same thing again, use a queen-excluder under the super, or, what is perhaps better still, fill the sections full of worker foundation.

11. Strictly speaking, no; a sum is appropriated to help toward keeping down the disease, but there is no law compelling me to do anything about it if I have foul-brood colonies. It is hoped, however, that what has been done so far may help toward getting a satisfactory law.

Alfalfa—Bee-Sting Remedies

1. I have an abundance of white clover, and I have read about alfalfa being such a good honey-plant. Would you advise me to plant some, or would the white clover be plenty?

2. What is a good remedy to keep bee-stings from poisoning me so? This must seem a silly question to you, but it is an important one to me.

3. What is the latest in the season one can start a nucleus and be safe?

I read the American Bee Journal and can not recommend it too highly. MINNESOTA.

ANSWERS.—1. I doubt your gaining much by alfalfa so long as the bees have more white clover than they can take care of.

2. A great many remedies for bee-stings have been given, and what is commended by one seems to fail with others. The important thing is to get the sting out instantly. Among remedies offered are ammonia, saleratus or soda, juice of onion or plantain leaves, kerosene, cloths wet in cold water, etc. A homely remedy, perhaps as good as any, is to lay on the place moistened clay or mud. *Don't rub or scratch.*

3. That depends upon the kind of season, the strength of the nucleus, and the amount of help you give it. Two

Langstroth frames well filled with brood and well covered with bees the 1st of August, with the right kind of a season, may build up to a fair colony without help. Usually however, commencing as late as that, they would need help in the way of bees or sealed brood, or both.

Wine Barrels for Extracted Honey

How would wine barrels do for holding extracted honey? I have a number of them, and they are clean and almost new. IOWA.

ANSWER.—I have an indistinct recollection that some one has objected that honey was inclined to ferment in such barrels.

Mosquito-Hawks Catching Bees

I have 5 colonies of bees, and the mosquito-hawks are catching them very rapidly. Do you know any way to stop it? They come only early in the morning and late in the evening. I am about two blocks from the woods or swamps. LOUISIANA.

ANSWER.—In an early volume of Gleanings a writer said they were easily scared away by boys or brought down by whips.

Best Bees for Super Work

Which is the best bee for super work, the black, the Italian, or the golden? I have all three kinds and the goldens are in the lead so far, but some people tell me they are no good for super work. KANSAS.

ANSWER.—The way to decide is by their work, and as you have the three side by side you can tell better than any one else which does the best work for you. You will find bees of either of the three kinds that are good for super work, as well as some that are poor. You can't always tell by the color of a man's hair how big a day's work he can do.

Transferred Bees Rearing No Brood

I have a colony that I transferred from one hive to another, and they seem to have the hive about half full or better. I made the transfer about 3 weeks ago, and there is no sign of any brood yet that I can see. I also took one out of a tree about 2 weeks ago, and they haven't any sign of brood. The one I transferred first had no queen, and I put in another queen, but I think they killed her. How long after they are transferred do bees begin to rear brood, and what shall I do with them? I can never find a queen. IOWA.

ANSWER.—The queen should go right on laying with scarcely any interruption, and in 3 days after an egg is laid a larva will hatch from it. You are probably correct in your supposition that the queen was killed, and another should be given. A queen should also be given in the other case, as well.

Uniting Weak Colonies

Last fall I attended a sale near here where a bee-keeper was selling out to remove to California. As the bees were put up and bid off colony after colony, I thought it would be a fine thing to own a colony or two to provide honey for family use, so I bought a couple of colonies in Langstroth hives.

Afterwards I bought a colony in a box-hive. Then I brought them home and packed them for winter. They came through in good condition. This was only the beginning. Soon after I bought them I discovered I had an "elephant on my hands." I knew about as much about bees as a hog does about Sunday.

So I subscribed for the American Bee Journal, bought a text-book, and straightway became almost inextricably mixed up in a maze of queen-cells, brood-frames, supers, etc. I persevered in my studies all winter, and this spring I laid in a stock of bee-supplies and began puttingter with the bees. When those in the Langstroth hives prepared to

swarm I divided them, letting the queenless part rear its own queen. I also found a couple of bee-trees in the woods. These I cut down and transferred, so now I have 8 colonies, some strong and some weak. They all have laying queens now (July 10), and if we have seasonable weather from now on I am in hopes will all be in good shape for wintering.

There is quite a lot of big timber here yet, and a good many bee-trees are cut every fall. I have often seen colonies starving to death where the tree had been robbed. I always felt sorry for the bees and wished I could do something to keep them from perishing.

1. If I should have some weak colonies this fall, say covering 4 or 5 Langstroth frames, could I unite with one of these "naked" colonies?

2. Would it be an advantage to me, or otherwise?

3. How much more stores would it take to winter the united colonies than the weak colony by itself?

MISSOURI.

ANSWERS.—1. Yes, you could thus have a strong colony instead of a weak one, but you must take more pains as to uniting in fall than during a flow, and of course you must look out to have stores enough.

2. It would be an advantage to have a strong colony rather than a weak one.

3. I don't know just how much, but at a guess I would say that if you unite two weak colonies of equal strength, the united colony would not need more than 50 per cent more than either of the colonies separately. If that be a correct guess, you will see that it would be a saving of one-fourth of the stores. More important than that, it would, in many cases, be a saving of one or both of the colonies.

Sweet Mixture for Winter Stores

Would a mixture of sugar, "sugarall" and corn-starch do to feed bees for winter stores? Of course most of the starch will settle to the bottom so the syrup could be poured off. I can get any amount of this mixture for nothing, as I handle the syrup after it is mixed, and at noon and night the tanks are emptied, and it is thrown away. It is very sweet. We will all agree that the sugar is all right, but what about the starch and "sugarall"? MAINE.

ANSWER.—I don't know. It would seem a little doubtful that anything of so little value as to be thrown away would be good feed for bees in winter. You could easily experiment on one or more colonies. Even if not safe for winter food, it might be good to feed for brood-rearing in spring.

Greatest Honey State

What State has made the greatest success with bees and honey during the last 10 years, and what is the best location in the State? I want to go into the bee-business quite heavily. KANSAS.

ANSWER.—Put in short, your question asks for the best location in the United States. I don't know just what that is, but there are a number of excellent locations. Take the names of the leading producers of large crops of honey, and each one of them is likely to have a good location. But that doesn't interest you particularly, for such locations are fully occupied already. Answering more directly your question, Texas contends with California for the highest place in honey-production, but I don't know what available locality in either is best.

Motherwort—A Good Honey-Plant

In my back yard grows this weed. It is a very hardy one, as I have tried to exterminate it and failed. It comes early and grows to be 3 feet high. I never happened to notice till this spring how especially fond the bees are of it. Now I am interested and want to grow it in waste places. Very early in spring it begins to bloom, probably when 8 or 9 inches high. As the stems grow it continues to bloom, while the first bloom matures into seed. You will notice this on the enclosed stalk. The bees prefer it to catnip, white clover, basswood, or anything else. What is it? And is the yield such as to pay growing it? When

must one plant the seed and how? We would have had an immense honey-flow here but for the rains. I should have added that as these flowers mature into seeds the pod is a burr.

ILLINOIS.

ANSWER.—It is motherwort. It is counted a good honey-plant, and is good for waste places, but it would hardly pay to occupy with it cultivated ground. I know nothing about its cultivation—never heard of its being cultivated—but you would be pretty safe to sow at any time when seed matures.

Swarms Uniting

What is the reason my bees act as they do? Monday morning, July 10, I noticed one colony of bees swarming, and they settled on a small plum-tree. About the time I was ready to put them in the hive another colony swarmed, and settled on them. I was about to put them in when another swarm settled on them, making 3 swarms in one from 3 different hives. I put them in a hive and they seem to agree all right. If any one doubts it he can bring 2 hives and have the pleasure of separating them.

WISCONSIN.

ANSWER.—Unfortunately the behavior of your bees is nothing very exceptional. If two or more swarms are out at the same time, they are very likely to go together, and some have reported five or more swarms in one huge mass. The consolidation of your three swarms will do good work, only by next spring the colony will be no larger than each of the three would have been if they had been separated. You could have divided them into two or three parts, dipping up the bees with a tin dipper, and giving each a queen. The finding the queens is not so very difficult, as in case of such uniting the queens are likely to be found balled.



Convention Proceedings

Report of the Chicago-Northwestern Bee-Keepers' Convention, held at Chicago, Ill., Nov. 30 and Dec. 1, 1904

(Continued from page 490.)

FIRST DAY—AFTERNOON SESSION.

Pres. York called for the report of the Foul Brood Committee which had been appointed two years ago.

REPORT OF THE COMMITTEE ON FOUL BROOD.

Mr. Moore—The Foul Brood Committee, of which I have the honor to be chairman, really has nothing to report. We reported in full to date at the last meeting, and from then till now there was no work that could be done except inspecting apiaries. I don't suppose that comes under the scope of this report. There is a heading in the program that does refer to such matters as that. We might make our recommendations; we might tell you a lot of things; we might say this fall the Legislature meets again and we have to get the law over again, or fail to get it. Mr. Kannenberg is with me on this committee, and I believe there is a vacancy to fill. As the committee having charge of this matter, we have to urge upon each one of you individually to do what you can to get a law through the Legislature this fall. If you know some member of the Legislature, communicate with him by all means. If you do not know any member take the pains to find the names and addresses of the nearest member to you and communicate with him. If every one of us would do that it would have a material effect. When I was there two years ago and appeared before committees of the Legislature to get the laws we did get, they said, "For goodness sake, stop writing us letters; we will give you anything if you will only quit writing to us."

Advertising is what we want, and the members of the Legislature must know we are alive. How are they going to find it out unless by individuals writing and saying, Give us the laws we need? But hundreds have to do that. We

want to ask this fall for either five or ten thousand dollars. In this State there are 102 counties. The State, in its census, has formally said that there are 35,000 bee-keepers in Illinois. If there were inspectors enough to cover that ground it would take 50 to 60 working six months. You can see how far five or ten thousand dollars would go. I had a conversation with the Hon. Mr. Austin, who got our last Bill for us, and he saw the point; he saw a thousand dollars wasn't a beginning for this great State of 102 counties with that number of bee-keepers. So that we want this fall \$5,000 from the Legislature to spend in the interests of the bee-keepers in this State, and it is a question of judgment whether to ask for \$10,000 and give them a chance to cut it in two, or ask outright for the \$5,000 we want. If you don't ask for anything you won't get anything, and in order to get anything we must have the help of all the bee-keepers in the State. I would like to hear from Mr. Kannenberg, who is a member of this committee, and has some things to say.

Mr. Kannenberg—I am one of the committee and we did pretty good work last year. I do not know whether we can do it this year or not. But one thing I think I must say, if we want to strive for that law we must have a compulsory clause in it or else it is no good to us whatever.

Dr. Miller—Hear, hear.

Mr. Kannenberg—That is right, Doctor. We want about \$10,000, that is about the only thing; and they will give us only half, the same as in damage suits, if the bee-keepers don't join in with us; I think we won't get much out of it if they don't help us the way they did last year. Last year I wrote hundreds of letters to all the Senators; I hope it did some good. As far as I know, the Hon. Mr. Austin is again elected to the Legislature with a large majority. I have not spoken to him this year, personally, because he is on his honey-moon trip. As soon as he comes back I am going to speak to him.

Mr. Wheeler—I would like to ask who the other Committee man is?

Pres. York—Mr. Clarke, I think was the other member of the Committee, but he has not served on the committee at all.

Mr. Wheeler—I would like to ask how many colonies of bees Mr. Kannenberg has?

Mr. Kannenberg—82.

Mr. Wheeler—How many has Mr. Moore?

Mr. Moore—I have never kept a large number; I have less than 35 now. My family keeps about 400.

Mr. Wheeler—What I was getting at was, we want representative bee-keepers on this committee; we want people interested, and that have thousands of dollars invested.

Dr. Miller—I have more bees than Mr. Moore and I don't believe that I could influence Mr. Austin as much as he has done. A man may represent a body of people without himself being one of those people. Possibly it would have its weight; at the same time if he can present the thing the right way that is more than to say he has the bees.

Mr. Colburn—A man has a thousand colonies of bees and he goes to our Legislature and he says, I want this and that, and the fellows say, you are selfish. If I have but very few bees and I go there for somebody else it will be two to one I will get what I ask.

Mr. Whitney—My experience with politicians is that the man who has some influence in the community is the man who will get some help from the Legislature, not the man who may possess perhaps a thousand colonies of bees, or any other interest that he may represent. I know individuals who haven't a single colony of bees that I think would make good committeemen for that very purpose. It seems to me the point is well taken.

Mr. Becker—On behalf of Mr. Moore I will say that he is the right man in the right place. I have had some experience with Mr. Moore in the Legislature. Mr. Smith and I were before the Legislature when they tried to get our law passed and I know what efforts Mr. Moore made in that direction, and we never left until we had the guarantee that the law would be passed, as far as the Committee on Appropriations goes. We couldn't wait until the House debated on it and the Senate, but we had the promise of the Committee; and they passed it in the House and in the Senate before they left.

Mr. Wheeler—I don't like to be misunderstood. It wasn't in regard to getting that appropriation I was speaking, and getting the Bill through; it was in regard to the

committee's work afterwards. You must not lose sight of the fact that people are interested that have money invested, and it must be looked into a little and we must see that we do not take men who are not interested financially in bee-keeping and who are not interested in the welfare of bee-keeping.

Pres. York—As I understand it, it does not make any difference after the law is secured. This committee has nothing further to do. The inspector is then appointed on the recommendation of the State Association, and the money is turned over to the State Association.

Dr. Miller—I move that the report be accepted and the committee continued.

Mr. Smith—Has that vacancy been filled on that committee?

Pres. York—Not yet.

Mr. Smith moved, which motion was duly seconded, that the chair fill the vacancy.

Pres. York—I think we might as well consider it a vacancy because Mr. Clarke has never served on the committee.

Mr. Wheeler—I object to that. I don't believe that is fair.

Pres. York—Then we had better have a motion to declare the vacancy.

Mr. Moore moved, which motion was duly seconded, that a vacancy be declared in the office of third committeeman of the Foul Brood Committee. [Carried.]

Pres. York then put a motion to fill the vacancy which on a vote having been taken was declared, carried. Mr. Horstmann was then appointed as third committeeman on the Foul Brood Committee.

Pres. York then put the motion to accept the report and continue the committee, which, on a vote having been taken, was declared carried.

Pres. York—Before we take up some of the questions which have been handed in we will have a talk by Mr. Ernest R. Root, of Ohio, on

BABY NUCLEI AND MATING QUEENS—BRICK HONEY

(Mr. Root exhibited before the convention a baby-nucleus box, illustrating his remarks as he went on by pointing out various features of the little outfit. We have since obtained a series of illustrations, and think the reader will have no difficulty in understanding Mr. Root's explanations if he will keep before him the illustrations.—Editor's Note.)

Perhaps those of you who devote your *whole* attention to the production of honey, may think that what I am now about to say on this subject will be of no particular interest to you for the reason that you can better afford to buy your queens than to rear them yourselves. This, I believe, is a mistake, as the honey-producer should properly inform himself as to the latest method of rearing queens so that he can rear his own stock as a matter of economy. I hope to show you, therefore, that you can afford to rear your own queens to a very great extent after having purchased one or more breeding queens, or having selected something from your own stock which shows an unquestioned superiority over other stock in the yard.

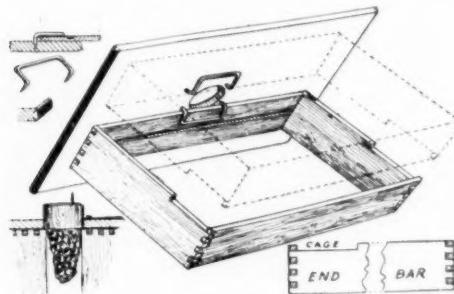
The business has been developed to a very pretty science. Indeed I know of nothing in all the realm of bee-culture that is more interesting or more fascinating than watching the baby queens develop into full-fledged mothers.

It will not be necessary for me to explain how queen-cells may be reared in wooden cell-cups in quantity, nor how the eggs of one or two breeding queens may be used for all the cell-building work. This part of the operation has been usually regarded as simple and easy; but the problem of getting the young hatched virgins *mated*—aye, there has been the rub. I desire to show you a method whereby even this part of the work can be accomplished simply and easily, and at a trifling expense in bees and brood.

Until within the last year or so, full-sized two and three frame nuclei using standard Langstroth frames have been employed for mating the virgins. To make such, it has been necessary to break up a good many otherwise strong colonies for honey-production. As a general rule, only three or four nuclei could be made out of one colony. This made the question of mating somewhat expensive. Mr. Pratt, Mr. Laws, and others who have worked at this problem, have now demonstrated that a small teacupful of bees and one or two sections of comb will serve as good a purpose as a large

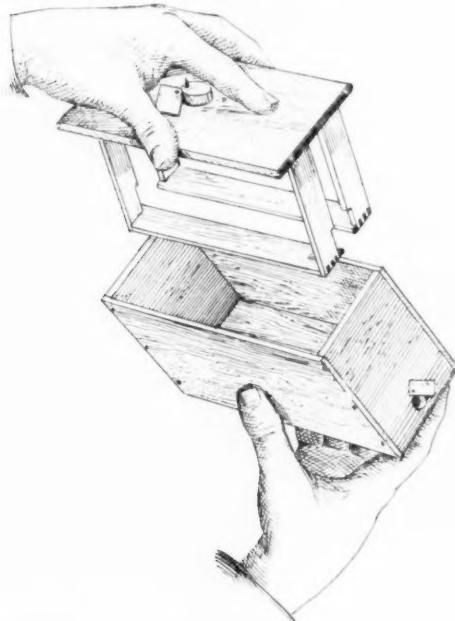
nucleus, with the added advantage that the queens can be found instantly.

I hold in my hand here one of Mr. Pratt's "baby" nucleus-boxes. As you will see, it is a miniature hive made of quarter-inch stuff with a small flight-hole in front. This has a tin slide on the outside so that the hole can be closed, and a



perforated zinc slide on the inside. This latter can be revolved around, holding the queen after she is mated. The little frames, as you will note, are secured to the cover, having no ears nor projections. They are not made permanently fast, but are secured by a staple bent at right angles, folded over against the top-bar. When these little frames are filled with comb and bees, the cover is turned bottom up, leaving the frames standing upright. If the queens or the eggs are not discovered on the two outside surfaces of the combs, a sliding twist will remove one of the frames so that its inside surface, as well as the inside surface of the other comb, can be readily seen. If the queen is laying, the fact can be noted at a glance. If she is to be caged and sent out through the mails she can be located without hunting. We have gone so far as to take every bee in the box and put it in the mailing-cage with the queen. In cases of this kind we supply the box with fresh bees in the manner I shall presently explain.

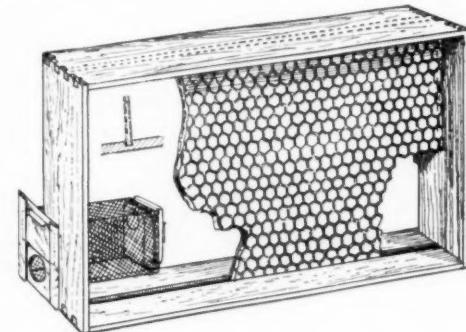
To get these little "baby" frames filled with comb, we make them of just the right size so that six of them will fit in a standard Langstroth frame, a good deal as eight sections used to be inserted in the old-style wide-frame. Each of these little frames is supplied with foundation, and the whole six in one frame is set down in the center of a strong colony. In a few hours the comb will be drawn out, and will contain some honey if honey is coming in, as well as, possibly, a few eggs.



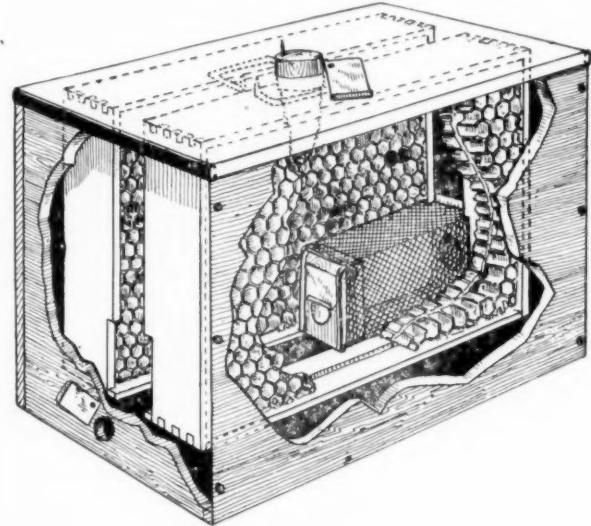
We have a good many of these frames, each containing six small frames, scattered through the yard so that we can get freshly sealed combs whenever we need them for the "babies," for that is what we call these miniature nuclei.

Now, then, how do we supply these little boxes with bees? We prepare a lot of them, say a dozen or so, with combs all ready for the bees. We next go to some good

colony and shake all the bees into a box, having previously smoked them in order to make them quiet, and to get them to gorge themselves with honey. This box of combless bees, after giving the brood to other colonies, is then carried to a shady place where we have the prepared miniature nuclei. The box of bees before scooping up is given a bump in order



to get them into a heap. The cover is removed, and with a tea-cup we scoop up one or two hundred bees and dump the teacupful into one of the baby boxes, when the cover with its combs is set down in place, thus confining them. In a like manner the other babies are supplied. Of course, the entrances are kept closed. Having supplied all the bees, we



can now give each through the hole in the cover a queen-cell built on one of these wooden cell-cups; or in 24 hours after the bees have come to know their utter queenlessness we may run in a young virgin.

We can now distribute these baby boxes around in different parts of the yard; but it is usually advisable to carry



HOW PRATT FEEDS SYRUP TO THE BABY NUCLEI.

them to an outyard or to some isolated locality where there may be one or two hives with a large predominance of selected drones. The queens are allowed to fly at this yard and become mated, when they are brought home and kept for supplying queenless colonies or to fill any orders that one may have; for these little boxes of bees will hold their queens for a considerable length of time. It may be nec-

try to "repeople" these boxes, for Mr. Laws says these clusters sometimes get uneasy; but we have kept these same little clusters going all summer, rearing their own brood, and working a good deal on the same plan as the ordinary strong colonies.

I wish to call attention to the fact that one can almost control the male parentage of his bees by selecting some locality where there are no bees, and keeping there a few hives of select drones.

BRICK HONEY.

"I show here a sample of "brick honey," or what has been appropriately called "honey butter." It is nothing more nor less than an oblong cake of candied honey hard enough to hold its shape. It is wrapped in paraffin paper and then given other wrappings, or, better still, putting into a carton and properly labeling it on the outside. These bricks of candied honey are secured from the cans of alfalfa honey—the honey, of course, being granulated solid. The tin can is stripped off from the cake with a pair of tinner's snips. The block of honey is now put into a regular machine for cutting up butter into bricks. This consists of a cast-iron plate with four upright standards on which slides up and down a frame having two or more wires stretched tightly across it. These wires are forced *perpendicularly* down through the block of honey by a steady, even pressure. Another frame swung on one of the standards as an axis, carries another set of wires which cut the honey on a *horizontal* plane. When cut up, these bricks can then be taken off with a thin-bladed knife, placed on a piece of paraffin paper of suitable size, and wrapped.

We have developed quite a business in putting up brick honey at Medina and vicinity. It is now offered in some of the largest retail stores in Cleveland. Of late we have been calling it "honey butter," and under that appropriate title it seems to take well with the general public. Our labels show how to liquefy, if preferred in that form, and also explain that pure honey, or nearly all of it, will turn to this solid state at the approach of, or during cool weather.

I believe this brick honey has a bright future, and that many of our honey-producers will find it a field well worth developing in their own localities.

ERNEST R. ROOT.

Mr. Wheeler—Do you have any absconding?

Mr. Root—Very little. I expected that, but we had very little. Our early experiments indicated there would be more or less absconding but I do not think that will be the case.

Mr. Kimmy—I understand the advantage of taking that to an out-yard is to control the drones?

Mr. Root—That is all.

Mr. Meredith—Do you expect to put them on the market? If so, about what would the complete expense be?

Mr. Root—We are going to put them on the market. What the price will be I don't know. I am glad I don't. I don't think it would be proper for me to mention prices at this time.

Mr. Meredith—Will they be in your catalogue?

Mr. Root—in 1905.

Mr. Colburn—The queen-cell is sealed?

Mr. Root—Yes, what we call a "wrapped queen-cell."

Mr. Colburn—Would that be warm enough in severely cold nights?

Mr. Root—I couldn't say as to that. In our locality we had no difficulty from that. We had those cells hatch along in November. This cage is what we call the Titoff case. It is quite convenient for holding the cell.

Dr. Miller—With your indulgence, I would like to say if you want to try the plan of having queens fertilized with baby nuclei, that you can do it without any arrangement of this kind at all, only just what you have at home. I reared a number of queens last year and had them fertilized. I followed Boston Smith's rule, "Do the best you can with what you have." I didn't have anything of that kind. I had an ordinary hive that I use every day, a dove-tailed hive. In that I put a wide frame that will hold four sections. In that I put one section of honey filled solid full of honey. Another frame beside it with a section of comb, no honey in it at all. It doesn't matter whether there is or not. I put those two in the hive. Had the hive closed up in front so that it would have only an entrance of one-quarter of an inch. Then I go to a hive, take out a frame of brood with the adhering bees and bring it to that hive. Then I tell my assistant to take that and pound off the bees and at the same time I drop a virgin queen in the bottom of the hive, quickly shut the

thing up, and leave them fastened there for three days. Then open the entrance, and that is all. The bees do the rest.

Mr. McCain—After forming the little colony—the nucleus—how long does Mr. Root keep that closed before liberating the bees or the queen?

Mr. Root—That all depends upon whether you carry them to an out-apiary.

Mr. McCain—In the yard.

Mr. Root—Not less than three days. They will have to be shut up at least three days to get them so that they will get used to a new location. At the end of that time they will do very well. In the out-yard you can use them immediately.

Mr. Wheeler—Mr. Stanley is here. He rears queens and I have bought hundreds of them in the last year and he has a very unique and fine way of rearing them, and he will exhibit for you any time you want him to in the back room. He does not care to come before the assembly and speak; but there is one thing I can assure you he rears good, lively queens, and the bees take them, and they lay, and they are a good color. He is one of the largest bee-keepers in the State, I understand; he represents about 700 colonies. Such men as that are men that work as well as talk.

Pres. York—Has Mr. Stanley anything to say on this?

Mr. Stanley—No, not unless anyone wishes me to talk.

(Mr. Stanley was requested to explain his method of rearing queens.)

Pres. York—While Mr. Stanley is getting ready I think we may take up a question or two.

SHOOK-SWARMING.

"How many present think shook-swarming a preferable and practical method of management?"

Mr. Whitney—That would depend largely upon circumstances.

(Pres. York called for a show of hands on the question. The request was complied with.)

Pres. York—It would be preferable, I think. There were four I think who raised their hands.

Mr. Wilcox—How many have an opinion concerning the subject and know anything about it?

Pres. York—Do you mean how many have tried it?

Mr. Wilcox—Yes.

Pres. York—How many have tried shook-swarming? Raise your hands. (About 10 responded.)

Pres. York—How many think it is preferable to all other methods? Raise your hand. (One responded.)

LAWS ON BEE-KEEPING.

"In what respect does the law of Cook County differ from the State laws relative to bee-keeping?"

Pres. York—Does anybody know of any different law in this county from any other county in the State?

Mr. Moore—There are no laws in Illinois except State laws which are applicable to every county in the State. There are no County laws.

Pres. York—Are there any ordinances in the City of Chicago relating to bees or bee-keeping?

Mr. Moore—There have been ordinances made in certain places in the State against keeping bees within certain limits.

Mr. Pease—We have in the ordinances of the City of Chicago, an ordinance that bee-keepers do not care to discuss very much, as a rule. It is still one of the ordinances. It is to this effect, prohibiting the keeping of bees within 200 feet of a public highway or alley. That ordinance is still in effect although it has never been enforced. There has been no litigation on the subject whatever. There has been considerable controversy among some of the bee-keepers of Cook County to have that ordinance repealed. As to the legality of it, it is a question as to whether it would be sustained or not. It is in a measure conflicting with the State Laws as being rather class legislation, and there has been a strong inclination on the part of many of the bee-keepers of Cook County to have that ordinance repealed. Philadelphia had a similar ordinance which was taken into Court and contested and carried to the Supreme Court of the State and there found unconstitutional. I suppose that is what is referred to by this question.

Mr. Moore—I am certainly instructed by the gentleman's authority, which I take for granted is correct, that there is an ordinance in Chicago on keeping bees within certain limits, but it has given us so little trouble that we didn't know there was such a thing. It would take \$500 or \$1,000 to wipe it off the statute book. No legislation of that sort is going to give us any trouble either now or in the future, judging by

the amount of bother it has been in the past; it might as well stay there, as there has been no attempt made to enforce it.

Mr. Abbott—I am not a lawyer, but whenever there is any specification regarding keeping bees a certain distance from any place I pay no attention to it whatever. It cannot be enforced in any State in this Union. That belongs to the common principles of law that underlie all law. Every law must be specific and must apply specifically to all the people engaged in that industry.

Mr. Kimmey—Suppose you lived next door to a church and should insist on keeping a row of bee-hives right along side of the church, don't you think there is power in the municipal power of a city to control that matter?

Mr. Moore—This matter has been threshed over at very great length. The law of nuisances covers a great many of these things. There is such a thing as a public and a private nuisance. No man would claim that keeping a cow was a nuisance, but in a city where people live close together you can keep a horse or a cow in such a way as to become a nuisance. It may be a private nuisance, it may be a public nuisance. The whole neighborhood is interested in having it abated, in which case there is appropriate remedy. Keeping bees or chickens is not a nuisance, but they may be kept in such a way as to become an awful nuisance. Then there is a remedy for the people aggrieved, at law.

Mr. Kimmey—Don't you think there is a remedy with the authorities. Has the pastor of a church got to go to law? Why can't he ask that there shall be a reasonable ordinance passed to control those things?

Mr. Moore—It is not necessary to pass an ordinance. If the church authorities are agreed, the church authorities as a corporation can maintain an action for specific nuisance.

Mr. Kimmey—Your argument would abolish all law. I don't believe that we should take the high and lofty position that we can keep bees wherever we please, regardless of everybody and anybody. When we do I believe we will find ourselves subject to municipal legislation under the police power granted by the State of all municipal corporations.

Mr. Moore—if the Legislature or if municipal corporations attempted to make laws to govern everything, pretty soon they would be making laws telling you to have your picket fence so high, to keep your next neighbor's chickens out.

Mr. Kimmey—They do that very thing right here in the city of Chicago.

Mr. Moore—There are a whole lot of things that must be governed by common sense, and they have attempted to make general laws to remedy specific cases of grievance. There is always a law for specific grievance.

Mr. Stanley being now ready to explain his method of queen-rearing, the subject was taken up.

STANLEY METHOD OF QUEEN-REARING.

Mr. Stanley—I have a frame of queen-cells here.

Dr. Miller—How do you get those queen-cells started?

Mr. Stanley—Started as they are now? Do you mean grafted?

Dr. Miller—Yes.

Mr. Stanley—They are started with royal jelly and then the larva is grafted in. I made these myself.

Mr. McCain—Are those the ordinary Doolittle cups?

Mr. Stanley—No. This is a frame showing complete cells, some of them hatched and some of them not. At this stage that should be removed (indicating).

Mr. Kimmey—What would I do with those if I had them?

Mr. Stanley—if you wanted to save the queen I suppose you would put it in a cage until she hatched and then you could make use of it by putting it in a nucleus, the full colony.

Mr. Moore—Before these hatch you cover them with some kind of a metal cover.

Mr. Stanley—Yes. In introducing the cage it is supplied with a candy to liberate the queen at any time. They are kept warm with the heat of the colony in full colonies or nucleus.

Dr. Miller—Right down in the colonies?

Mr. Stanley—Yes; they are put right between brood-combs, one, two, three or four colonies.

Dr. Miller—I wish you could all see closely the beautiful workmanship of all of this. Mr. Stanley is a wonder as a mechanic. His work is beautiful.

Mr. Whitney—Do you mean to say that you can intro-

duce a queen to a colony in one of those protectors—that is a laying queen, and the bees not kill the queen?

Mr. Stanley—Yes, I can introduce a virgin queen into a colony and have the laying queen caged.

Mr. Whitney—with room for the bees to go in and out at pleasure?

Mr. Stanley—Yes, the bees can go in and out and feed their laying queen. Have your laying queen caged, and the virgin queen at liberty on the combs.

Dr. Miller—Would it do if there were a laying queen at liberty in the hive?

Mr. Stanley—You couldn't liberate the virgins. You might lose your virgin and you might lose your life.

Mr. McCain—in regard to fertilizing. You have quite a number of cells there. What is your method of getting the queens fertilized?

Mr. Stanley—I use a three-frame nucleus, standard size frame. I have tried the small one. I have had some failure and some success.

Mr. McCain—Do you introduce the virgins one at a time?

Mr. Stanley—one at a time.

Mr. Kannenberg—How long can you keep the queens after they are hatched in those cells you have there?

Mr. Stanley—I have kept one 34 days to see how long I could keep them.

Mr. Kannenberg—Without any honey? The bees will feed them?

Mr. Stanley—Yes.

Mr. Wheeler—Could you introduce them after that time?

Mr. Stanley—Yes.

Mr. Whitney—Could you introduce that virgin queen into the center of the hive where there is a laying queen, and not have any of these virgin queens killed?

Mr. Stanley—Yes; they can be cared for in the colony with the laying queen.

Mr. Moore—They simply can't get at them.

Mr. Stanley—Certainly.

Mr. Moore—They are protected by the zinc.

Mr. Whitney—The question is about the bees killing them.

Mr. Stanley—I haven't had any trouble with the bees killing them.

Mr. Wheeler—Do they ever attempt to ball them?

Mr. Stanley—No, I have never had any trouble with balling.

Mr. Wilcox—Would it not be better, in introducing them into a hive, to put them in an upper story with a queen-excluding honey-board?

Mr. Stanley—if there are bees enough it would be just as well; all they require is to be kept warm.

Mr. Wilcox—You supply them with food?

Mr. Stanley—you don't need to supply them; the bees feed them.

Mr. Wilcox—The bees will not feed the virgin queen?

Mr. Stanley—Yes, the bees feed the virgin queens while they have a laying queen in the hive. There probably are cases where they will not, but it can be brought about so that they will.

Mr. Wilcox—I have very often slipped a virgin queen in the hive with a laying queen, and found her dead afterwards. I thought they killed her or starved her to death.

RE-INTRODUCING A BALLED QUEEN.

"When a laying queen is balled in introducing, what method should be adopted to introduce her again to the same colony?"

Mr. Whitney—that comes directly in line with some practice I had a year ago, although I didn't ask that question. I introduced the queen to a queenless colony for a young lady who bought a colony of bees from me, and the next day or two afterwards she wanted to see whether that queen was accepted or not. She found they had eaten out the candy and the queen was liberated. I told her there was a little danger in opening that hive so soon, but if she cared to have me do it I would try to do so. I opened the hive and I didn't find the queen—I gave them a little smoke—I was afraid perhaps they had killed her. The young lady looked down into the hive at the bottom and she said, "Mr. Whitney, what is the matter?" I looked in and I said, "There they are balling that queen as sure as you are alive." I put my hand down and took that ball of bees out and shook them and there that queen was and they hadn't hurt her. I recaged her and put her back and left it till the next morning.

hen I pulled the plug out and in three or four days the queen was all right.

Dr. Miller—There is just one part that might be added what Mr. Whitney has said. He says that he introduced that queen the second time in the morning.

Mr. Whitney—No; I introduced her immediately.

Dr. Miller—About what time was it?

Mr. Whitney—About the middle of the day it was that we looked, and I introduced her again, but plugged up the cage so that she couldn't get out, and left her there over the frame till the next morning, and then carefully removed the frame and didn't disturb the bees at all.

Dr. Miller—That is the point—if you free her at a time when the bees are likely to be troublesome, in the morning. Any other time in the day you will not be quite so safe as if you free her just at night when there will be no chance for robbers or foreign bees to get in. In this case it is the queen with which you have had trouble, and you want to take more than ordinary care. So take the additional precaution to liberate her at night and you will be safe.

Mr. Wilcox—I thought perhaps there might be a word more said in regard to the manner of picking up that queen in the ball. He said he picked it up with his fingers and put it in the cage.

Mr. Whitney—No; I scooped the whole ball of bees up from the bottom of the hive with my hand and shook them out and the bees were very much surprised.

Mr. Wilcox—Sometimes a bee-keeper is, too! I could recommend those that are very timid to use a little table spoon and pick up the ball and throw it into some water.

Mr. McCain—in regard to the ball of bees, I would like to ask if it is a dangerous or unwise thing to smoke the ball.

Dr. Miller—Yes, and no. I take the smoke and I will warrant that one way I use it they will kill the queen, and another way I use it they will not hurt the queen. Hold the smoker off far enough so that the cold smoke comes upon them, and they will leave it about the same as they will when you throw them into the water. Get some bees in your fingers and hold the smoker up so that the smoke will be hot and see if you don't get stung. You will be sure to kill the queen if you blow hot smoke on it.

Mr. Kimmey—I don't know anything about these matters, but I have had just a little experience. I got a queen, and found after she was liberated the bees had balled the queen in the bottom of the hive, and I picked it up and laid it on top of the frames and moved it a little, and it never occurred to me that they would sting me; and the queen flew away and I thought, "Well, surely she has gone." But I waited about an hour, or something like that, and I looked again and I found the queen back, balled in the bottom of the hive. I simply picked it up, from my previous experience, and carried it into a little building in my hands and then caged it there. I had a caged queen and the colony without any queen which I wanted to get that queen into. I didn't know what to do. I went back and hunted up all the old bee-papers I could find to get some information on the question. I don't know just what paper it was in, but it said to smear the bee with a honey and water mixture and throw it in the hive and it would be all right. I thought, "Here is a desperate case and I don't know what to do." I tried it and it succeeded, and that is all I know about it. I simply smeared the queen with that mixture and poured a teacupful right down between two frames and let the bees in, and it went on and made a good colony.

Dr. Miller—It may succeed next time, but maybe it won't.

Mr. Dadant—I think there is a great deal less danger than some people would think of bees stinging when they have balled a queen. I have never had patience to go after a pail of water to throw the bees into. We have found the bees ball and I was in too much of a hurry to release her to do anything like that and I never got stung. They are rubbing against one another and expect to be rubbed, and their stings will not hurt one another; they will hardly hurt your fingers. Our way to do it is to do it promptly.

Mr. Abbott—I would like to ask these gentlemen what they have queens balled for? I wouldn't think anything more about putting a queen into a hive and not having her balled than I would about picking a frame out. I think a bee-keeper hasn't learned his business that has them balled.

Mr. Whitney—if she were balled what would you do?

Mr. Abbott—She won't be. You might just as well ask me if my wife left me what would I do. She won't leave.

Mr. Kimmey—I would like to know what I did wrong. I simply put the cage in the hive and left it there, I believe, about 42 hours and found her balled in the bottom of the hive.

Dr. Miller—May I be allowed to interrupt and cut this matter short by asking that Mr. Abbott shall tell us what he can do so that there are never any balled queens or queens balled.

Mr. Whitney—Perhaps I can answer the question for Mr. Abbott. I don't believe he keeps any bees! [Laughter.]

Mr. Abbott—I used to have about 200 colonies when I was handling queens, but the question with me was, How your colony came to be queenless?

Dr. Miller—That is not the question. The question is, How does he do that he never has any queens balled?

Mr. Abbott—in the first place I don't have queenless colonies to begin with, when I want to introduce a queen.

Mr. Kannenberg—I had a colony of bees I wanted to Italianize. I got the queen out about two days before, and I left it queenless for two or three days. Then I looked to see when I put the queen in if there was—

Mr. Abbott—You followed the instructions of the bee-books and journals; you shouldn't have done anything of the kind. The way to introduce a queen is not to kill the old queen to start with. The way to do is to leave the old queen in the hive; don't interfere with her at all. When you get your cage with the new queen, uncover the wire so that the bees in the cage can get at the bees inside of it, and get at the queen if they want to. Leave it there at least 48 hours, then catch the old queen and kill it, and uncover the candy and cover up your hive as quick as you can. Just as soon as you find the queen and kill it don't spend another moment's time but get the frames back in as quickly as possible; uncover the candy, cover up the hive and go about your business, and pay no attention to them for two or three days; and when you go back you will find the queen laying every time, and never have one balled. If you kill the old queen according to the instructions in all the books, in nine cases out of ten you will have trouble and have them balled.

Dr. Miller—I have had queens balled a good many times when there was but one queen in the hive and none other had ever been in; they balled their own queen.

Mr. Dadant—There are many cases in which we have balled queens. I have seen hundreds of instances. I have had two swarms come out and each of the two queens balled because some of the bees of the other swarm were with that queen. I have had queens that I was about to introduce, balled before I had any time to do anything with them. I have seen young queens balled in the hive. Those things are accidents that happen in the bee-business, and the best of us cannot avoid them.

Mr. Root—I would like to agree with both gentlemen, but I think Mr. Dadant is exactly right. I also agree with Mr. Abbott on his method of introducing queens. We have been trying that all the past summer and the plan is all right. Leave the old queen in the hive until you are ready to release the new queen. We have been doing it with our virgin and laying queens and it works better than it worked the other way. But the "A B C of Bee Culture" has been changed, Mr. Abbott, and our directions are changed to cover that. We introduce our virgins; we have three or four in a hive at a time, and we also have a laying queen. As those virgin queens begin to lay we take out the laying queen and leave the other in the hive, and when the other begins to lay we take her out. I think there is one point that has been dropped, and that is this question of scent of the bees. At the University of Pennsylvania I spent some three months a year ago last summer, and after working a long time at this problem the intention was to consider some problem of introducing. I remember Mr. Abbott had been trying to pound that thing into us, and we didn't believe it—

Mr. Abbott—for twenty years. [Laughter.]

Mr. Root—and Dr. Phillips takes the ground—and he has been studying this question very carefully—that this question of introduction depends almost entirely on the scent of the bees. If the bees are balled, and you handle that ball in your hand and get that queen in your fingers, the chances are that they will ball up again because that scent has been changed. The bee's sense of smell is very acute. If the scent is changed a little bit the conditions are different. They recognize her somewhat as a stranger. I have had queens balled in our yard. By picking up the queen and showing her to visitors and dropping her back, they will ball her. Sometimes a disturbance in the hive will cause them to ball her. But

this question of scent plays a more important part in it than we bee-keepers have been in the habit of thinking. If she has the same scent as the rest of the bees she will be accepted. A little while ago Mr. Stanley spoke about putting virgin queens in a hive where there is a laying queen. If they have the scent of the rest of the bees the bees won't tackle them, but if the laying mother can get at those then there will be war.

Mr. Smith—Why do bees ball their queens? In my experience I find that there are two motives, one is to protect them and another is to kill them. I will illustrate: I had an Italian second swarm and a black swarm go together, and both queens were balled. The yellow queen was balled with her own bees; the blacks also balled their own queen. I liberated them and neither one was hurt. I introduced the black queen and she flew away. I introduced the yellow queen and shook the bees all out on the ground, and dropped her in among the bees as they went to the hive. She was introduced that way perfectly safe. The black queen came back and lit on the outside, and the yellow bees killed her. In the first place they had balled their own queen, which I think was for protection.

Mr. Abbott—I want to say I didn't mean my remarks to apply to these abnormal conditions of two swarms going together or anything of that kind. I want to be rightly understood, I just let them go together and let them fight it out. I don't fool with them.

Mr. Smith—if you alarm a colony they will sometimes ball their queen. That is to protect the queen.

Mr. Root—Shut the hive up and they will be all right.

DISPENSING WITH THE BEE-VEIL.

"Generally speaking, can the bee-veil be dispensed with? How many think it can?"

Mr. Smith—I would like to see a man go through 40 or 50 colonies in the honey season without a bee-veil.

Mr. Dadant—There are a few gentlemen here that get along without bee-veils but if they wanted to follow some of us all day among the bees and not flinch, stay right with it, they will wish they had a bee-veil, unless they are absolutely proof against the sting, and there are very few that are. When you have a bee-veil you don't have to wear it all the time, but you have it at hand so that you can wear it if you have to.

Dr. Miller—I may say in regard to that, that there are men who do not use a bee-veil at all. There was one of them went in one of my apiaries; he went around with me with a smoker and he said, "They will never sting me; there is no need for me to wear a veil." And he kept that smoke going all the while, so I couldn't have any use of the smoker. I won't give you the man's name because I am afraid it might hurt the feelings of his son Ernest. [Laughter.]

Mr. Whitney—There was a friend of mine who said he didn't need a veil. He was extracting a great deal of honey. He sold the honey around through the community. I didn't know anything about bees then, and he invited me into the yard where he was taking off some frames; and he said, "They never sting an honest man." I went in and stood around the hive and pretty soon a bee struck him right over the mouth. I said, "I guess you're right." [Laughter.]

Mr. Moore—if any one really wants to handle bees without a veil he can do it. I have been engaged in marketing honey in Chicago, and for the sake of advertising I have done a great many outlandish things. I have attempted to go into my own hives and other peoples' without the bee-veil. The past summer I didn't carry a veil with me except on one or two days. I opened the hive without smoke. But I want to tell you right now, I got stung on one occasion twelve or fifteen times because not wearing a veil. If you are so patriotic, all right; but as a rule it pays to have a veil.

Mr. Whitney—A friend of mine in Ohio has been able to handle his bees without a veil for years. At one time he thought he would look into one hive and he took off the cover, and they came out. He backed up and held up his hands and they still came. He turned around and ran down the outside cellar-way and shut the trap-door, and he was stung so badly he fainted away and was sick for three weeks. Since then he hasn't been able to handle bees at all. A lady friend said, "I always use a veil; never go into the yard without one."

"SHOOK" OR "SHAKEN" SWARM.

"Is it better to say "shook swarm" or "shaken swarm"?

Mr. Root—if Dr. Miller wasn't here I would say "shaken swarms," but in his presence I always say, "shook swarms."

Pres. York—I think we would better refer that to Mr. Hutchinson.

Mr. Hutchinson—I agree with Mr. Root on that question.

Dr. Miller—if that thing is entirely to spite me, I am going to say a word about it. I am very glad of an opportunity to say a word in favor of having people at large understand that bee-keepers are not a lot of ignoramuses. I have felt mortified at the use of that word as a violation of common English, that a teacher in any one of our public schools would know better than to countenance. If either of these good brethren who have such a vicious feeling towards me can give me any possible reason why the word "shook" is any better than the word "shaken," they can give me something I have never had yet. The word "shook" expresses something to me a little stronger than the word "shaken." When Mr. Root told me that, I knew that there was something that had shaken loose in his brain. If they have a seat reserved in one of these places, say in a concert, there will be laid down a little slip and on it marked, "Taken." Do you think I would feel any more secure of that seat if it was marked "Took?" [Laughter]. Now, I consider this, without any joking, of enough consequence that we should spend a little time upon it. If there is any reason why "shook" is better than "shaken" I would like to hear it. One is good English, the other is bad, and it seems to me that is enough to settle the question, unless you can give some other very strong reason.

Mr. Dadant—in regard to this matter I think there is a great deal in locality! [Laughter.] I am foreign born, but when some of our Western Americans took a trip to Europe I was with them, and I had occasion to say to an Englishman, "Hurry up," and he said, "I suppose you mean "make haste."

Mr. Whitney—When I saw the words "shook swarm" I thought the whole thing was wrong. What is a swarm? It is bees in the air or in cluster. Then you can't make a shook swarm or a shaken swarm. It is simply a colony of bees. You can't shake them or have them swarm in the air or cluster, so that it is not a swarm at all.

Mr. Wheeler—I would like to know of how much money value this is to us. We are here to learn something. I didn't leave my work to come here to listen to sport. I came here to learn something about bee-keeping. Now what does this have to do with bee-keeping?

Mr. Abbott—I used to teach school and they paid me \$50 a month for teaching their children the correct use of the English language. It must have had some value to me. But I disagree with Dr. Miller that the use of the word *shook* is not as correct as *shaken*. This is simply the invention of a new condition of things, and new conditions of things are creating words and phrases every day in America. I suppose I could mention 50 that have been created within the last few years. It is just as proper to apply "shook" to a new condition of things as "shaken;" and the words got into Dr. Miller's dictionary that way.

Pres. York—This is one of the questions for diversion. Now we will go on to something more solid.

Mr. Wheeler—We have editors, such as Mr. Hutchinson; leave such things to him. We don't want to spend our time here to-day on that. He will put that word in just as he pleases when he gets home, anyway.

ADVANTAGE OF SHOOK SWARMING.

"What is the advantage of shook swarming?"

Mr. Hutchinson—I suppose primarily that the principal advantage of this shook swarming is that we are able to have the work gone on with without being there to see to it. We forestall swarming. We make preparations for the bees to swarm and we are not there to take care of them, so instead of that we go at it and shake them off and make the swarms while we are there to see to it.

Pres. York—What about joining the National in a body this year?

Dr. Miller—Moved, duly seconded, that this Association join the National in a body, at the rate of 50 cents a member.

Pres. York put the motion which, on a vote having been taken, was declared carried.

Dr. Miller—Right in connection with the point which is before us is the question of uniting with the State. If it is a proper thing to bring that up now I move that this Association, as a body, unite with the Illinois State Association, paying into its treasury 25 cents per member.

The motion was seconded.

Mr. Colburn—What is the present membership of the Illinois Society?

Mr. Smith—The present membership of the Illinois State Association is over 150.

Mr. Wilcox—How many bee-keepers' societies are there in the State of Illinois?

Mr. York—I think there are two besides this, outside of the State organization, that is, the Northern Illinois and the Western Illinois.

Mr. Whitney—I want to ask the Treasurer as to what effect taking 25 cents for each member joining the State would have upon our balance in the Treasury?

Mr. Moore—There would not be enough money left in the Treasury to support our Association if we paid out 75 cents on each dollar, that is, 50 cents to the National and 25 cents to the Illinois State. The actual expenditure for membership if this motion is passed, under our Constitution, will be about \$20 out of our treasury.

After a long discussion Pres. York put the motion that this Association join the Illinois State Association in a body by paying 25 cents a member, which, on a vote having been taken, was declared carried. The necessary amount to pay same was secured by passing the hat.

ELECTION OF OFFICERS.

The President appointed as tellers Messrs. Fluegge, Jacob and Dadant. Ballots were taken and the officers were all re-elected as follows: President, George W. York; Vice-President, Mrs. N. L. Stow; and Secretary-Treasurer, Herman F. Moore.

QUEEN'S WING AND LEG GROWING.

"Does a queen's wing ever grow again after being clipped?"

Dr. Miller—No.

Mr. Criggs—Does a queen's leg ever grow where a leg has been pulled out?

Dr. Miller—No.

Mr. Criggs—I was clipping a queen's wing one time with gloves on, and I didn't have a very steady hand, and in some way pulled off one of the large legs right to the bottom. I was sorry at the time, but I thought they had so much brood and eggs they could rear another queen. However, I kept close watch and they didn't rear another queen to take her place, but this queen in the course of another two weeks had another leg.

Mr. Wilcox—Did her progeny have a missing leg, too? [Laughter.]

Mr. Criggs—I didn't find any that did.

Dr. Miller—I would rather believe a clipped queen got into that hive from another hive than to believe the wings or leg would grow on again. That has sometimes happened. A clipped queen has gone from one hive into another.

Mr. Criggs—I should say not. This was a pure Italian queen and all the other queens within two rods were dark. I had only half a dozen Italian queens in the whole apiary of about 60 or 80 colonies; the rest were all dark bees.

Mr. Whitney—Was that a queen of your own rearing?
Mr. Criggs—No.

OUTDOOR WINTERING OF BEES.

"In outdoor wintering is water running out of the entrance of the hive an indication of poor wintering?"

Mr. Wilcox—I should say not, but it indicates poor preparation for wintering. There ought to be absorption enough so that it wouldn't condense and accumulate.

Mr. Snell—That has been my experience. If the ventilation is proper, and the preparation is proper for wintering, there will be no water running out from the entrance.

STARTING WITH BEES.

"Tell a few good ways for beginners to get a start in bees and a first-class experience at one and the same time."

Dr. Miller—Buy a colony of bees, buy a bee-book, or several of them, and subscribe for a bee-paper, or several of them, and then go on and get your experience.

Pres. York—I noticed that the Doctor didn't say he could buy his experience, too.

Dr. Miller—He will buy it and pay for it.

EFFECT OF MARKET REPORTS ON HONEY PRICES.

"What effect has market reports on the price of honey?"

Mr. Burnett—I don't know that I ought to answer or endeavor to answer that question. I make some market reports.

What effect it has, has to be problematic. I think, however, it is in general alignment with all other reports on prices. People are guided by what they find to be a price in a certain market. It gives you an idea of what goods can be obtained for there. It is also a guide for those seeking a market. I should think it had a good deal to do as a matter of fact with the general business of the country.

Mr. Colburn—I am a resident of Chicago and I asked that question because I wanted to find out if there is any difference, or if it had any appreciable effect; and the reason I asked it is, I have been on South Water Street a good many times and I always found on enquiring there that the prices of honey were invariably greater than these market reports give us to understand. Why that is so I don't just know. I think I know the South Water Street houses pretty well. I was a grocer here in Chicago for a number of years and went all around the streets with my market wagon on every day in the summer, and every other day in the winter, and I found things down there were quite peculiar. This fall I examined up and down the street on one or two days and I found at that time five different firms reported honey as selling at 15 cents a pound in one-pound sections. At that time our market quotations—the nearest was within seven days—gave us prices at 12 to 14 cents. This is what I don't understand, and I want to understand it. Every bee-keeper within 300 miles of Chicago who sends his honey here, if he takes these papers, naturally is enquiring and looking at these reports, and these reports ought to be reasonably accurate. At the stock yards, with which I was familiar for a number of years, the market reports give the actual sales as they are. They don't say, "We quote so and so." They say, "Armour bought so and so, such and such a kind of stock, and it sold for so much." I think our market reports ought to be under the control of this Association, on account of the fact that there is such an apparent discrepancy between the reports in the papers and the actual condition on the street. We as individuals who are bee-keepers are interested in having prices at a reasonable figure, and we don't want any market reports which show the prices of honey to be less than it is generally sold at. Whether they are, or not, I can't say, but I think they are. In every investigation I have made I have invariably found a difference of one or two cents in the reported price of the honey from the price on the street. In the quotation from Milwaukee it is from one to two cents higher than the Chicago market, and yet Milwaukee is 200 miles nearer the great center of honey-production than we are. I brought this up because I think the bee-keepers will lose two cents a pound on every pound they send to Chicago unless they get straight market reports.

Mr. Wilcox—The question is, What effect do market reports have on the honey market? If they be timely and truthful they tend to steady the market, to prevent fluctuations, and are highly profitable to all.

Mr. Moore—There isn't any use in allowing any prejudice to enter into the discussion of these questions. I know a good many people think that all lawyers are thieves, and all commission men in the same class. They are very much like the rest of us; they are all honest and all dishonest. But according to Mr. Colburn's own statement there is no discrepancy. He said the market report gave 12 to 14 cents. Twelve meant the lower grade, 14 meant the highest grade. Understand that those quotations mean some considerable sale. You go along and ask a man what is the price and he says 15 cents. He thinks, to look at you at first, you are a suburbanite, come to carry honey home under your arm. If you say, "Here, I want five or ten cases," he gives it at 14 cents, according to the quotation that you say was quoted. There are different circumstances. Quantity and quality of purchase make a difference as to quotations, as you state it, and are fair.

Mr. Burnett—As to difference, I would like to have him change the word invariable to variable. It seems to me it is hardly fair that it should be invariable higher than the quotations. As a matter of fact we all know that is not the fact. That buying honey, as he buys it—perhaps he met a man who buys from the receivers. The majority of the houses on South Water Street that sell honey in a small way or keep a few cases, buy it from some of the receivers, and they need to get a cent a pound as a margin over and above what they pay. The purpose, as I have understood for many years, of market reports, is to give as nearly as may be the actual value of honey sold as received. A lot of honey sold consisting of 25 or 100 or 1,000 cases is the price that the purchaser must be guided by. Allow him to send the honey here and get a cent a pound less than the quotations are for that grade of

honey, he feels that he has not had the market value for it. So that it is not fair to any one to say that it is invariably so, but that it does vary is a fact.

Mr. Fluegge—I find the market quotations in Chicago given out as nearly correct as they possibly can be. I visited a number of grocerymen and they informed me that the prices they paid for first-class honey were 14 cents a pound, and that is comb honey. That is what the quotations are now. I have been watching it for several years and there is very little difference between what the grocerymen say and what the quotations are, so I think they are as nearly correct as we can get them from that standpoint.

HORIZONTAL WIRING OF COMB-FOUNDATION.

"Can brood-frames filled with full sheets of foundation be wired horizontally in a manner that will prevent buckling?"

Mr. Dadant—if we wire foundation at all, I believe as a general thing those who do wire put their first wire too low. The weight is at the top—the pull is on the top story; the cells are nearest to the top of the frame and the first wire should be put very close to the top, within an inch. When you come to the bottom of the frame, those who have handled foundation for years, know that those cells are hardly ever stretched, and there is no need of wiring below the middle of the frame. If you put one wire at the middle and the other two above, you will have better success than if you put the wires within your space in the frame.

Dr. Miller—I would like to ask Mr. Dadant a question I think germane to the subject. In those, do you suppose that the wires are taut or slack?

Mr. Dadant—it would be better for the wires to be taut if they are pressed into the foundation. A slack wire is only supposed to follow the wax if it settles. The great trouble is giving it to swarms. When full sheets of foundation are given they sag at once before it is finished; that is the time when it is really more of a strain upon it than is natural with the comb, because bees build their combs entirely at the top before they lengthen them, but when you give them a full sheet they will load it from the bottom, and the top has a greater strain upon it, and I think nearly all the strain takes place from that. I think the wire ought to be taut, but in a great many cases it is not necessary at all if it is carefully done to wire.

SIZE OF COLONIES OF BEES IN SPRING.

"How much brood, honey and bees should there be in a hive in the time of fruit-bloom before putting on supers?"

Mr. Wilcox—I am confident that the answer to that will vary according to the locality somewhat. For my part I never put supers on during fruit-bloom. Then, the quantity of bees cuts no figure. If there is not surplus enough coming in our locality at that time to make a decent start, I always divide them, if they are strong enough to bear dividing without being weak colonies, when clover opens in the middle of June. Fruit-bloom is in the middle of May, and if there are two bushels of bees I would divide them; if there was one bushel I would divide them; if there were 10 pounds of live bees I would divide them and give the other half a young queen, but I would build them both up for the honey harvest the first of July or the latter part of June. Our best honey-yield comes in August, from wild flowers. Consequently I would be sure, anyway, to have more bees to gather more honey later in the season.

PREVENTION OF ROBBING DURING A HONEY-FLOW.

"What can be done to prevent bees from robbing in the honey-flow season?"

Mr. Hutchinson—You couldn't make them rob then.

Dr. Miller—They can rob. The way to stop them is to take away the fool bee-keeper that gets them to rob.

Pres. York—He ought to be clipp'd!

EXTRACTING FROM COMBS HAVING BROOD.

"Will extracting from combs containing unsealed brood injure the quality of the honey provided no brood is thrown out?"

Mr. Wilcox—No.

Mr. Burnett—A gentleman here has the idea with regard to that brood, that it has a tendency to sour the honey. If there is any such thing it is important. It may be one of those things that is an unknown quantity to us. We often find in a consignment of honey, there are one or two packages that will ferment, and the rest show no tendency to do so. As dealers, and finding so many instances of that kind, we are quite at a loss to know what is the cause of it.

Dr. Miller—I should say yes to that question; if you had obliged me to say yes or no just at first blush I should have said no, but thinking more carefully over it I should say yes, because if you put brood-frames—and by that we generally understand combs containing brood—into an extractor you most surely will have unripe honey in that, and when you throw unripe honey out you are likely to injure the quality of your honey, and that may account for the kind of honey that Mr. Burnett is talking about.

Mr. Wilcox—I think it is terrible to throw out unripe honey, but it does not follow just as he expressed it, surely.

Dr. Miller—Almost surely.

Mr. Dadant—I have had considerable experience in the matter of extracting honey. I must say, in the first place, it is not advisable to extract honey from combs containing young brood; and in the second place I believe Dr. Miller is right; if you do that you are extracting in the beginning of the season and you will have thin honey. If you extract at the end of the season from brood-combs that contain brood and sealed honey the brood will likely be sealed also. Therefore it is unlikely that the bee-keeper who wants good honey will extract from brood-combs containing unsealed honey. If it contains any he can throw it out without throwing any brood out. Those who are expert enough can make it in such a manner that it moves the larvæ a little forward when it was extracted and this larvæ could work back after the comb was taken back to the hive, or the bees would take them back, and yet none of them were thrown out. But you don't want a careless boy to turn the extractor, because a little too fast whirling will throw the brood out, and then you have a chance for fermentation. Although, I believe very ripe honey will not ferment even if it has brood in it. The ancients tell us they used to preserve bodies in honey, showing that honey will keep things from rotting. I believe that bees and larvæ will be preserved in the honey if the honey is ripe, but if the honey is unripe it will be sure to ferment, whether you have dead larvæ in it or not.

Mr. Wheeler—I have had a suspicion of that thing for quite a number of years, and the more I have watched it and studied it, the more I have made up my mind there is a great deal in it. You not only throw out the honey, but the food that is given to the bees, that sours the larvæ. One has to be very careful in extracting. Another point Mr. Dadant makes about the honey season being at a close; we don't have such a thing around Chicago where there is sweet clover; honey is gathered so that they can continue to breed and have young bees at all times. If you extract from those combs that have brood in you must have young larvæ. And then those young bees have a liquid: they are floating in a liquid. If that liquid is thrown out it is my impression it floats on top of the honey and it sours and gives the smell of sourness to the whole dish of honey. Yet I believe the honey down underneath is just as sweet as it ever was.

Mr. Wilcox—You don't believe that is thrown out without throwing out some brood?

Mr. Wheeler—That is immaterial. We do throw out the brood. I think you throw out some of that liquid when you don't throw out the brood.

(Continued next week.)

Honey as a Health-Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food", written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey". It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey the more honey they will buy.

PRICES, prepaid—Sample copy for a two-cent stamp; 50 copies for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed *free* at the bottom of the front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

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Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Outdoor Suitable Work for Women

DEAR MISS WILSON:—As each week I read the interesting chats our "Sisters" give us, I most energetically want to "talk back," but, like Helen Keller, my hands being my only mode of communication, and they being otherwise pretty fully employed, I have been unable to do so. However, this special corner of June 22 is too attractive to let pass, so "here goes it."

In "Convention Proceedings" (page 439), Mrs. Wingate speaks of the Rural New Yorker's request for suggestions in regard to pin money for a "home-tied farm-girl 20 years old." I noticed that paragraph, and thought of suggesting bees, but it seemed foolish to do so, as any country girl should not need to be told the money-making abilities of either bees or poultry. A girl without sufficient observation, or "get there" resources, to carve out a lucrative line for herself in rural occupations, will not usually succeed in carrying out others' suggestions. In fact, I looked on the inquiry as manufactured to draw out unique, interesting and useful "pin money" opportunities.

Our country and farm girls are too bright and resourceful to need outside suggestions. But, of course, there are many ways to help "make the wheels go 'round" that a timely hint opens our eyes to, and which such answers as the Rural New Yorker's inquiry opened the flood-gates for, are most timely and helpful.

Again, Mrs. Wingate's comparison between our comfort in knowing our bees are safely housed, and to "don waterproof and rubbers, if they're handy, and if not march out without them, to chase some half-drowned chickens or turkeys that have been foolish enough to leave their mother's wing," is most killingly true. There is simply no comparison between the work of the two occupations, or the expense.

A friend of mine has made a careful estimate that it takes 1000 White Leghorns to support modestly two people. The initial expense of housing, feeding, etc., such a flock is a serious one. And the care! The same party says—and I think with truth—that there is no branch of farming, developed as a specialty, that so employs, at its utmost tension, every faculty the human body possesses, mental and physical.

As a rule, I think it's best not to put "all our eggs in one basket," or to depend for our income upon just one branch of "home industry;" but to keep some bees, and some poultry, and some small fruit, and make each the best of its kind possible. This gives a variety of interests, breaks the routine and drudgery, and insures every year a fair return and income.

Now concerning women managing bees alone, "I ha me doots" as to its being practicable for the "average American woman." And this because housekeeping, (which includes "Bar le Duc Preserves," and such like, I suppose, which seems to me a simply dreadful undertaking!), serving, social and church duties pretty well "tuckers them out," and they haven't much energy to lug around honey and manipulate bees. Of course, 5 or 10 colonies is a quite different matter, but take 20 to 40 colonies and there is considerable manipulating to be done, take the sea-son 'round.

While I can manage 80 colonies for extracted honey with a helper, my hands are too weak to do really any very efficient work among the bees alone; so perhaps I am not a fair judge of the situation. At the same time it should be encouraging to invalid sisters to know that with the help of a small boy our returns are some years over \$800 from our bees, and this in a rather poor sec-

tion for flora, and where prices are low for honey—5 to 9 cents being our best.

Well, "We've got a swarm!" so good by all, and best wishes for "a big harvest for us all this summer."

FRANCES E. WHEELER.

PS.—Figuratively speaking (of course), I would like to "pat that brother on the back," who, on page 438, talks so sympathetically of the saving of weak colonies, and gives such useful, helpful advice.

F. E. W.

Miss Wheeler knows what she is talking about, as she keeps both bees and poultry, and her interesting way of talking about them makes one wish one could be clad in a cloak of invisibility and tag her around at her work to watch her for a day.

While bee-keeping has its rosy side, the darker side must not be supposed to go altogether with the chickens. If you keep enough bees there is many and many a time those same "rubbers and waterproof, if you have them handy," will be called into service; if not, you will have to get along without them. Even worse than working in rubbers, with the bees in no amiable temper, and crawling over you where you'd rather not have them—still worse, it is to have the weather so bad for a day or more at a time that you can't go near the bees, and yet you feel there's work that *must* be done, or things will get into such a snarl that you'll be swamped.

Fortunately, all tastes are not alike, and enough will be found of varying tastes to fill the different occupations. It would be bad if all the sisters should take to bees, and leave the biddies to take care of themselves.

"Essence Honey"—Another Fraud

Karo Corn Syrup is not without a competitor as being better than honey. The writer received a circular laying before the public the discovery of "3 flavors that will gain you fame;" "their equals unknown to science." One of them attracted attention at once, being thus described:

"Far Ahead and Cheaper than Fresh Honey. ESSENCE HONEY. \$10 per gallon. Nothing like it in the world for candies, artificial honey, liquors, etc."

With visions of "fame" to be gained by the use of this wonderful discovery, as well as a fortune to be acquired by supplying the market with a superior article of honey, inquiry was made for full particulars as to how this "far ahead" honey was to be made. The reply was as follows:

"DEAR MADAM:—Take 80 percent glucose and 20 percent rock candy syrup; after mixing this then mix 2 ozs. Ess. Honey to every 100 lbs. Color with yellow to suit yourself."

There you have it, sisters. No longer any need to endure stings and hot suns. Make honey winter as well as summer. No failure of seasons. No danger of overstocking. No one who has ever had a good taste of glucose, with its lingering taste reminding one of an old brass spoon, would be willing to go back to the behind-the-times article got together by the bees!

In one respect the directions are a trifle vague: "Color with yellow to suit yourself." But that gives room for original experiment, and you can only tell what "suites yourself" by trying successively carrots, chrome yellow, aniline dyes, etc. There is a possibility of improvement also by varying the proportions of the ingredients. So large a portion of rock candy syrup (of course granulated sugar would not do at all) must have a weakening effect upon the delicious flavor of the glucose. Why not make it 99 percent glucose and 1 percent rock candy syrup?

Mr. Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.

By E. E. HASTY, Sta. B. Rural, Toledo, Ohio.

EXTRACTING SMALL QUANTITIES OF WAX.

I can bear witness that for neat and convenient extracting of small charges of wax a kink in the plan given by Robert West is excellent. Press all the refuse down with a perforated follower, and let the whole establishment get cold before removing the wax. Mine was a much smaller arrangement than his, and I used it very diligently and often. Not been used lately. Page 443.

SAWING OFF THINGS WITH SWARMS.

Comrade J. Kimball, it seems, felt compelled to pull up an evergreen-tree to get the swarm clustered upon it. If he keeps on he'll yet be compelled to saw off the leg of a sleeping man for the same reason. Page 423.

FEEDING BEES—SAGE FAILED TO BLOOM.

It appears that in famine time, in a mild climate, careful feeding of each colony individually saves practically all the colonies, while open-air feeding, much less work, still lets quite percent of them perish—looking in fact like a case of not energy enough to get out and appropriate the feed. The demise of a thoroughly worthless colony may be considered as some gain as well as some loss; but a salve of that kind is hardly strong enough to cure the sore when the loss is 50 colonies out of 200. Think I should want to try a compromise system. Of course, the colonies that need least will get most; but with perfectly and easily movable frames all around it ought not to be a hard job to exchange a few frames between the feeble folk and the

bloated bondholders. Then, after a time (in the style of the Irish communist), "faith, and we'll divide agin."

And Mr. Dayton furnishes us another case of the ever-occurring unexpected, in that sage (never known to do so before) entirely failed to bloom last year. Queer. And yet a well-marked member of the numerous family that Mr. Queer, the cousin of Adam, has sent down to us. Page 422.

QUEENLESS BEES PERSECUTING VIRGINS.

Doolittle also accuses queenless bees with persecuting caged young virgins. And bees with a queen he finds much inclined to the same trick. Avoid the whole thing as much as you well can. Page 421.

PROF. EATON'S HONEY DEFINITIONS.

I think Prof. Eaton's honey definitions to be exceedingly good ones, and hardly have any suggestions to make. Page 419.

KEEPING QUALITIES OF HONEY.

Glad to see we are getting to the truth about the behavior of honey when kept for considerable periods. The tiresome falsehood usually told in the past about honey "just as good as ever," shows signs of playing out. "Good riddance" to it! Page 419.

RULES FOR BEE-ASSOCIATIONS.

I am not sure it would be advisable for us to adopt the Australian rules for our associations; but I'm quite sure it will do us good to consider that men of the same race and

general objects as ourselves have found such rules advisable. Those whose interest in us is mainly in shearing us are sometimes favored too much—and also they might be proscribed too severely. Page 420.

THE "CLOISTERING HIVE" IN WINTER.

Mr. Dadant is right, that in our climate it is better to let winter bees fly when they can (and suffer real losses from chilling and snow-shine) rather than to try to restrain them of their liberty. Nevertheless the Cloistering Hive is interesting. It should do us some good to study up the ingenious devices of our fellow craftsmen of other lands. Giving bees air through perforated tuoes darkened at the ends is a nice way. I'm not sure but some of our manipulations might borrow it. A lot of hollow weed-stems not quite large enough for bees to crawl through is also an ingenious air-supply when hives are to be closed in with cow-dung. Why cow-dung instead of mud? Mud, when perfectly dry, is a tolerably good bee-wall; but it reabsorbs water too easily. Every rain makes it wet. Cow-dung, when it does get dry once, resists water nearly as well as a board, and being lighter than a board, it holds more air, and is probably warmer.

Having such a nice arrangement for shutting bees in might very easily make the bee-keeper a hobbyist on that subject—be shutting them in at odd times all summer. And here's a question possibly profitable for our experts to butt their heads against: Would frequent shutting in through the summer get them so habituated to confinement that the winter's shutting in would do little or no harm? I'll venture the guess that most colonies (not all) could have their restlessness greatly mitigated that way—but not entirely cured probably. Page 405.

Reports and Experiences

Prospects Poor in Colorado

The first crop of alfalfa has been cut, and although bees are very strong not a pound of comb honey has been produced. Many bees are starving, and many are trying to rob those that are weak. It looks now as if the price of honey would solve itself, though I am sorry to see things in their present condition.

The weather has not been favorable for the secretion of nectar. It has been cool and quite windy, with very cold nights. Grasshoppers are playing havoc with the sweet clover. I have but little hope now of a honey crop.

W. S. BEVERLIN.

Delta Co., Colo., July 7.

Good Yield from One Colony

I have 80 colonies of bees, 40 at one yard and 40 at another. I took 46 pounds in 13 days from one hive while it was rainy weather. I have doubled up my colonies now.

JOHN GERTHOFFER.

Onondaga Co., N. Y., July 21.

A Peculiar Honey Season

The present honey season is in more than one respect a peculiar one. The copious rains during the first 3 months of the year produced an extraordinary growth of shrubs and bushes, at the same time causing great hopes for an unusually large honey-crop to spring up in the hearts of our bee-keepers. The honey-flow from black sage started in with full force, and in years there had not been seen such a glorious bloom of this wonderful honey-producing plant. Those bees that were in good condition (having been fed as late as March) profited well and carried in considerable honey, which, it must be said, was of rather thin quality. Unfortunately the weather was not very favorable—too cold, and dry fogs prevailing, and preventing the bees from making wax. Soon reports came, that in general the hives were honey-bound, that the bees were loafing, and it was rather

difficult to start them to working in the supers for comb honey. This state of things lasted all through the months of May and June, and thus it happened that not so much extracted honey, and still far less comb honey, was produced than might have been the case. The swarming-fever started in rather late, but when they began to swarm rather large swarms were cast off, and many an apistar has more than doubled his number of colonies.

This month, up to date, we have had only 6 bright mornings; also a few rather hot days, the temperature running up as high as 100° F. When the black sage stopped blooming—which was sooner than expected—there was a lull for over 14 days, when the bees became rather cross and difficult to handle. White sage bloomed all right, though not so well as desirable. At present the bees are working hard on sumac.

We therefore might say that the present honey-crop, though by no means as large as anticipated, will still be above a medium average; that is, as far as extracted honey is concerned, while it will be far below half in comb honey.

MAX BOELTE.
San Diego Co., Calif., July 17.

Clover Crop Cut Short

I have 40 colonies of brown bees. It was so dry here during June that the white clover crop was cut short. Bees are at a standstill now.

E. G. GUTHREY.

Saline Co., Mo., July 3.

Splendid Work of One Colony

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general objects as ourselves have found such rules advisable. Those whose interest in us is mainly in shearing us are sometimes favored too much—and also they *might* be proscribed too severely. Page 420.

THE "CLOISTERING HIVE" IN WINTER.

Mr. Dadant is right, that in our climate it is better to let winter bees fly when they can (and suffer real losses from chilling and snow-shine) rather than to try to restrain them of their liberty. Nevertheless the Cloistering Hive is interesting. It should do us *some* good to study up the ingenious devices of our fellow craftsmen of other lands. Giving bees air through perforated tubes darkened at the ends is a nice way. I'm not sure but some of our manipulations might borrow it. A lot of hollow weed-stems not quite large enough for bees to crawl through is also an ingenious air-supply when hives are to be closed in with cow-dung. Why cow-dung instead of mud? Mud, when perfectly dry, is a tolerably good bee-wall; but it reabsorbs water too easily. Every rain makes it wet. Cow-dung, when it does get dry once, resists water nearly as well as a board, and being lighter than a board, it holds more air, and is probably warmer.

Having such a nice arrangement for shutting bees in might very easily make the bee-keeper a hobbyist on that subject—be shutting them in at odd times all summer. And here's a question possibly profitable for our experts to butt their heads against: Would frequent shutting in through the summer get them so habituated to confinement that the winter's shutting in would do little or no harm? I'll venture the guess that most colonies (not all) could have their restlessness greatly mitigated that way—but not entirely cured probably. Page 405.

Reports and Experiences

Prospects Poor in Colorado

The first crop of alfalfa has been cut, and although bees are very strong not a pound of comb honey has been produced. Many bees are starving, and many are trying to rob those that are weak. It looks now as if the price of honey would solve itself, though I am sorry to see things in their present condition.

The weather has not been favorable for the secretion of nectar. It has been cool and quite windy, with very cold nights. Grasshoppers are playing havoc with the sweet clover. I have but little hope now of a honey crop. W. S. BEVERLIN.
Delta Co., Colo., July 7.

Good Yield from One Colony

I have 80 colonies of bees, 40 at one yard and 40 at another. I took 46 pounds in 13 days from one hive while it was rainy weather. I have doubled up my colonies now.

JOHN GERTHOFFER.
Onondaga Co., N. Y., July 21.

A Peculiar Honey Season

The present honey season is in more than one respect a peculiar one. The copious rains during the first 3 months of the year produced an extraordinary growth of shrubs and bushes, at the same time causing great hopes for an unusually large honey-crop to spring up in the hearts of our bee-keepers. The honey-flow from black sage started in with full force, and in years there had not been seen such a glorious bloom of this wonderful honey-producing plant. Those bees that were in good condition (having been fed as late as March) profited well and carried in considerable honey, which, it must be said, was of rather thin quality. Unfortunately the weather was not very favorable—too cold, and dry fogs prevailing, and preventing the bees from making wax. Soon reports came, that in general the hives were honey-bound, and the bees were loafing, and it was rather

difficult to start them to working in the supers for comb honey. This state of things lasted all through the months of May and June, and thus it happened that not so much extracted honey, and still far less comb honey, was produced than might have been the case. The swarming-fever started in rather late, but when they began to swarm rather large swarms were cast off, and many an apiarist has more than doubled his number of colonies.

This month, up to date, we have had only 6 bright mornings; also a few rather hot days, the temperature running up as high as 100° F. When the black sage stopped blooming—which was sooner than expected—there was a lull for over 14 days, when the bees became rather cross and difficult to handle. White sage bloomed all right, though not so well as desirable. At present the bees are working hard on sumac.

We therefore might say that the present honey-crop, though by no means as large as anticipated, will still be above a medium average; that is, as far as extracted honey is concerned, while it will be far below half in comb honey.

MAX BOELTE.

San Diego Co., Calif., July 17.

Clover Crop Cut Short

I have 40 colonies of brown bees. It was so dry here during June that the white clover crop was cut short. Bees are at a standstill now.

E. G. GUTHREY.

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This is one of the standard books on bee-culture, and ought to be in the library of every bee-keeper. It is bound substantially in cloth, and contains over 500 pages, being revised by those large, practical bee-keepers, so well-known to all the readers of the American Bee Journal—Chas. Dadant & Son. Each subject is clearly and thoroly explained, so that by following the instructions of this book one cannot fail to be wonderfully helped on the way to success with bees.

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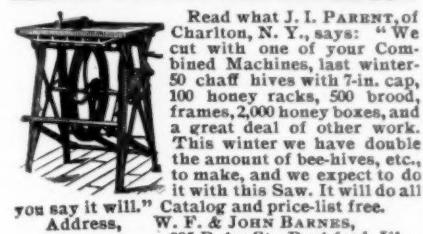
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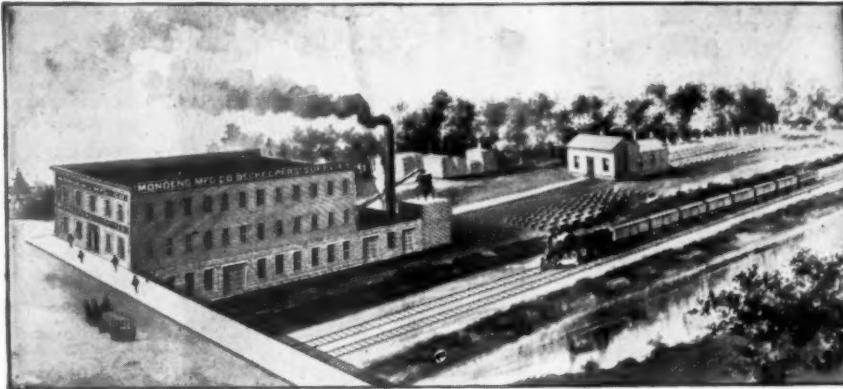
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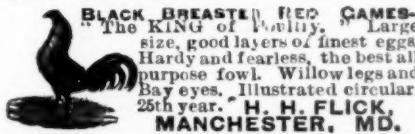
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...OHIO...

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Honey and Beeswax

grades, but no large blocks could be moved at these figures. There is still considerable of last year's crop unsold, part of which, no doubt, will have to be carried over until the fall. Extracted honey in fairly good demand. New crop California honey selling at 6@7c for water-white, 6@6½c for white, and 5@5½c for light amber. Southern at 50@60c per gallon according to quality. Beeswax somewhat declining; choice average stock selling at 29c.

HILDRETH & SEGELEN

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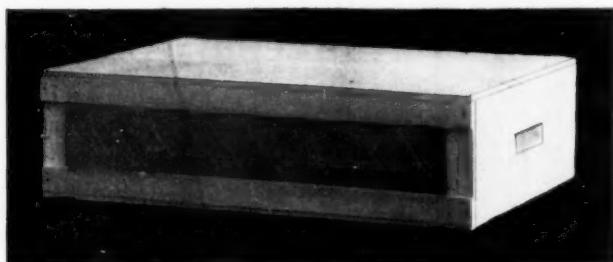
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